

STANDARDS DEVELOPMENT BRANCH OMNR  
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**ACIDIC PRECIPITATION IN  
ONTARIO STUDY - APIOS**

**1982**

**DAILY PRECIPITATION  
CHEMISTRY LISTINGS**

**MARCH 1984**

**ARB-056-84-ARSP**

**API-002-84**

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**Ministry  
of the  
Environment**

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ACIDIC PRECIPITATION IN ONTARIO STUDY - APIOS

1982 DAILY PRECIPITATION CHEMISTRY LISTINGS

MARCH, 1984

ARB -056-84-ARSP  
API-002-84

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### ACKNOWLEDGEMENTS

This report was prepared by Richard Kirk and Walter Chan of the APIOS Atmospheric Deposition and Chemistry Program. However, the data themselves are a product of the combined efforts of many individuals. Precipitation samples were collected by a large number of site operators, whose names cannot be individually mentioned here, under the coordination of the APIOS environmental technicians Steve Elliott (in Southwestern Region), Dave Allcock and Paul Kehoe (in Southeastern Region), Wim Smits (in Northwestern Region) and J.P. Varto (in Central Region). Sample handling was carried out by Dan Orr and Liane Skelton, and overall network coordination by Bill Bardwick of the Air Resource Branch. Chemical Analysis were performed at the Laboratory Services Branch under the coordination of Frank Tomassini. All equires regarding the reported data should be directed to Walter Chan, the APIOS Atmospheric Deposition and Chemistry Program Leader (416) 965-1634.

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<u>Station Name</u>	<u>Map. Ref. No.</u>	
Longwoods	02	1
Melbourne	01	16
North Easthope	03	25
Wellesley	04	40

### **PART IV    CENTRAL REGION DAILY PRECIPITATION CHEMISTRY LISTINGS**

<u>Station Name</u>	<u>Map Ref. No.</u>	
Balsam Lake	06	52
Dorset	08	67
Nithgrove	07	85
Raven Lake	05	97

### **PART V    SOUTHEASTERN REGION DAILY PRECIPITATION CHEMISTRY LISTINGS**

<u>Station Name</u>	<u>Map Ref. No.</u>	
Charleston Lake	11	112
Railton	10	127
Graham Lake	12	136
Whitman Creek	09	148

### **PART VI    NORTHWESTERN REGION DAILY PRECIPITATION CHEMISTRY LISTINGS**

<u>Station Name</u>	<u>Map Ref. No.</u>	
Fernberg	16	157
Forbes Township	13	166
Lac La Croix	15	178
Quetico Centre	14	184

PART I

INTRODUCTION

## INTRODUCTION

The data listed herein are a summary of the 1982 results acquired from the APIOS daily precipitation sampling network. All data presented in this report have been screened for validity. Remarks and qualifications have been appended to records, and/or results where necessary. The screening procedure involved checking each record for chemical analysis integrity (e.g - ionic balance, observed vs. theoretical conductance). Gross limit checks were applied to the results. Upper limit were determined as  $M + 2S$  where median (M) and scale (S) represents robust estimates of mean and standard deviation respectively. Scale of the distribution was determined from interquartile distance, i.e.  $S=0.74$  (3rd Quartile - 1st Quartile) based upon logarithmicly transformed results. In a situation where the distribution is significantly bounded by reported detection limits, S may be estimated as follows,  $S=1.48$  (3rd Quartile - 2nd Quartile). All lower gross limits were specified as zero. The data were also screened for outliers statistically by applying the Dixon Ratio test to the highest and lowest values observed in each region on a daily basis. Outliers were determined at the 95% level of confidence. Records and/or results deemed unreliable are flagged but not deleted. Detailed description of the validation procedures as applied to this data set is available from the Ministry upon request.

Samplers utilized for daily precipitation collection include the Aerochem Metrics and SES (Sudbury Environmental Study) types. At the inception of the network, the primary instrumentation was the Aerochem Metrics type for summer (rain) sampling and the SES type for winter (snow/rain) sampling. At the Dorset, Kingston and London station clusters, the Aerochem Metrics type was utilized from May 1 to October 31 and in the Thunder Bay cluster, from May 1 to September 30. The SES type was utilized from November 1 to April 30 in the Dorset, Kingston and London station clusters and from October 1 to April 30 in the Thunder Bay station cluster. In 1982, it was recognized that under certain conditions, the SES type sampler would not collect representative samples as compared to the Aerochem Metrics sampler, therefore as of the winter (October or November depending on location) of 1982 Aerochem Metrics samplers were used throughout the year.

### Station Identification

The station identification is defined by four descriptive fields (e.g. - Dorset/Daily/Aerochem #08). The first field refers to the sampling location. The second and third fields describe the sampling interval and the instrumentation used respectively. The last numeric field refers to the index code utilized on the location map.

### Daily Precipitation Chemistry Listings

Sample type, as coded in the data listings, represents the best guess of the type of event which was sampled. All chemical analyses were done on unfiltered samples. Lab pH entries represent pH measurements at the main MOE Laboratory in Toronto while field pH entries represent measurements at regional laboratories. Remark codes (e.g. U,A) appended to individual results are defined in a later section. The tabulated results for "Free H" were calculated from the reported Lab pH. Total hydrogen results, reported as "Total H", represent a titration of the sample with NaOH to an end point pH of 8.3.

### Calculation of Equivalent Precipitation Depth (mm)

Aerochem Metrics Instrumentation:

$$\text{Equivalent Precipitation Depth (mm)} = \frac{\text{Volume Collected (ml)} \times 15.6}{1000}$$

SES Instrumentation:

$$\text{Equivalent Precipitation Depth (mm)} = \frac{\text{Volume Collected (ml)} \times 6.1}{1000}$$

### Calculation of Observed Sampling Efficiency

$$\% \text{ Efficiency} = \frac{\text{Equivalent Precipitation Depth (mm)} \times 100 \%}{\text{Gauge Depth (mm)}}$$

Field Comment Code Index

A - Insects in sample  
B - Leaves in sample  
C - Particulates in sample  
D - Fibres in sample  
E - Sample not submitted  
F - Sampler malfunctioned  
G - Sample spilled or leaked

H - Volume incorrect  
I - Event(s) missed  
J - Wet side open when not precipitating  
K - No precipitation collected  
L - Part of event missed  
Q - Other

Office Comment Code Index

C - Poor calculated vs.  
observed conductance  
comparison  
J -  $\Delta$  pH Large  
H - Poor calculated vs.  
observed pH comparison  
M - Poor ionic balance

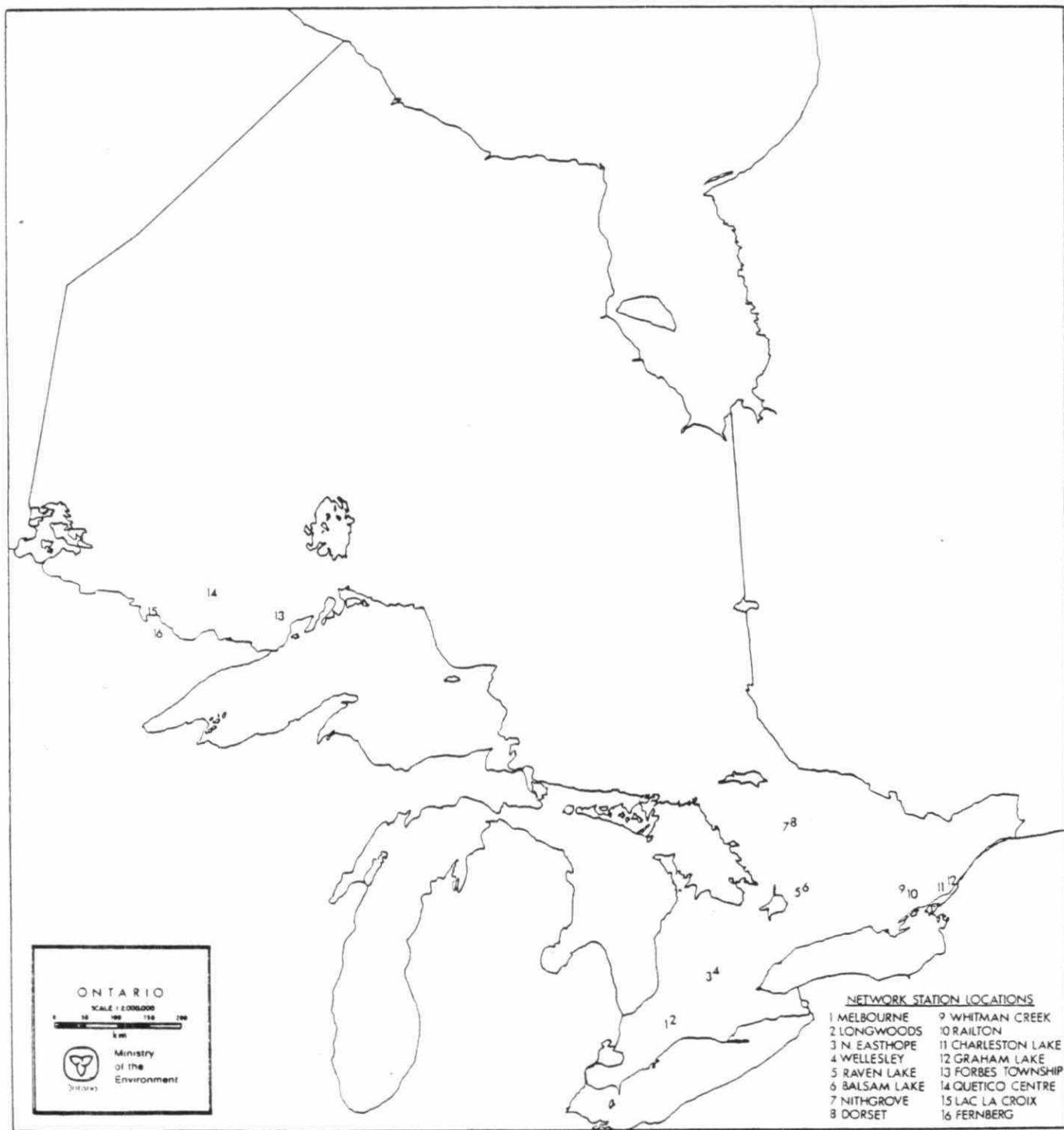
N - Abnormal sampler efficiency  
T - Free  $H^+$  exceeds total  $H^+$   
X - Sample lost  
Y - Collected sample remained in  
sampler in excess of 24 hours  
Z - Non-standard collection period

Result Remark Code Index

> - actual results greater than value reported  
< - actual result less than value reported  
T - actual result less than criterion of detection  
W - no response, minimum possible results reported  
A - approximate value  
U - unreliable result

PART II

STATION DESCRIPTION AND LOCATION MAP



**APIOS DAILY PRECIPITATION AND AIR MONITORING NETWORK SITE LOCATIONS \***

AREA	MOE REGION	STATION NAME	ELEVATION (m above MSL)	LATITUDE (North)	LONGITUDE (West)	UTM COORDINATES (Northing)	UTM COORDINATES (Easting)
London	Southwestern	Longwoods Conservations Area*	239	42°53'02"	81°28'50"	4747600	460700
		Melbourne	213	42°47'15"	81°33'23"	4737100	454500
		North Easthope	375	43°24'21"	80°53'35"	4805650	508650
		Wellesley	344	43°28'13"	80°45'35"	4812700	519600
Dorset	Central	Dorset Laboratory*	320	45°13'23"	78°55'49"	5009600	662450
		Nithgrove	325	45°12'01"	79°04'14"	5006800	651600
		Balsam Lake Provincial Park	259	44°37'35"	78°51'22"	4943500	670170
		Raven Lake	274	44°36'40"	78°54'43"	4941550	665700
Kingston	Southeastern	Charleston Lake Provincial Park*	92	44°29'54"	76°02'30"	4927500	417150
		Graham Lake	130	44°35'22"	75°51'44"	4937450	431550
		Railton	156	44°22'34"	76°35'33"	4914700	373200
		Whitman Creek	137	44°29'07"	76°49'19"	4927200	355100
Thunder Bay	Northwestern	Fernberg*	506	47°56'51"	91°29'26"	5311000	612000
		Lac La Croix	368	48°21'14"	92°12'32"	5355900	558400
		Forbes Township	324	48°34'58"	89°38'56"	5384150	304800
		Quetico Centre	420	48°24'44"	91°12'08"	5399750	632100

\* All sites monitor precipitation concentrations. Sites labelled (\*) also monitor air concentrations.

PART III

SOUTHWESTERN REGION

DAILY PRECIPITATION CHEMISTRY LISTINGS

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/SES

#02

PAGE : 1

REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT		SUBPROJECT		SAMPLER EFFICI- ENCY (%)	COMMENTS	
		START/END HR.	END/HR.	START/END HR.	END/HR.					01-RAIN	02-SNOW	01-STD.	02-APIOS		01-MOE	03-SPECIAL
03-COMP/04-ICE																
JAN 3+82	JAN 2,82	800	800	****	****	1	0.3	2	17171	2	1	211		N		
JAN 4+82	JAN 3,82	800	830	2200	830	1	5.3	2	17172	2	1	95	D			
JAN 5+82	JAN 4,82	830	830	1800	600	2	1.7	2	17179	2	1	109	D	CM		
JAN 7+82	JAN 6,82	830	830	1200	2200	2	0.9	2	17180	2	1	46	D	N		
JAN 11+82	JAN 10,82	830	830	1800	830	2	****	*	17182	2	1	****	C			
JAN 12+82	JAN 11,82	830	830	****	****	2	4.1	2	17184	2	1	13	C	N		
JAN 13+82	JAN 12,82	830	830	****	****	2	1.7	2	17186	2	1	70	C			
JAN 14+82	JAN 13,82	830	830	830	830	2	2.5	2	17188	2	1	44	CD	N		
JAN 15+82	JAN 14,82	830	830	****	****	2	****	*	17190	2	1	****	CD			
JAN 18+82	JAN 17,82	830	830	****	****	2	3.7	2	17192	2	1	56	C	H		
JAN 19+82	JAN 18,82	830	830	****	****	2	****	*	17194	2	1	****	E			
JAN 21+82	JAN 20,82	830	830	2130	200	2	3.7	2	17196	2	1	33	C	N		
JAN 23+82	JAN 22,82	800	830	****	****	3	14.3	2	17199	2	1	78				
JAN 24+82	JAN 23,82	830	830	****	****	2	****	*	17200	2	1	****	C			
JAN 28+82	JAN 27,82	830	830	600	800	2	0.7	2	17202	2	1	62	C			
JAN 30+82	JAN 29,82	800	830	****	****	2	14.1	2	17204	2	1	91				
JAN 31+82	JAN 30,82	830	915	830	915	3	3.5	2	17206	2	1	38	C	N		
FEB 1+82	JAN 31,82	900	1330	****	****	2	11.2	2	17208	2	1	10	C	N		
FEB 3+82	FEB 2,82	830	830	635	830	2	****	*	17210	2	1	****	CE			
FEB 4+82	FEB 3,82	830	1230	830	2330	2	15.3	2	17212	2	1	17	C	N		
FEB 6+82	FEB 5,82	800	800	****	****	2	0.3	2	17214	2	1	75	CD			
FEB 7+82	FEB 6,82	800	830	****	****	2	4.3	2	17216	2	1	93	C			
FEB 9+82	FEB 8,82	830	1000	2200	930	2	2.9	2	17218	2	1	94	C			
FEB 10+82	FEB 9,82	1000	830	400	700	2	****	*	17220	2	1	****	C			
FEB 11+82	FEB 10,82	830	830	300	645	2	****	*	17222	2	1	****	C			
FEB 14+82	FEB 13,82	800	900	1900	600	2	4.7	2	17224	2	1	70	C			
FEB 19+82	FEB 18,82	800	1200	815	700	3	4.7	2	17226	2	1	99	C			
FEB 21+82	FEB 20,82	800	900	1000	1300	1	2.3	2	17228	2	1	108	C	T		
MAR 2+82	MAR 1,82	830	815	1800	815	2	****	*	17230	2	1	****	C			
MAR 3+82	MAR 2,82	815	830	815	1330	2	0.7	2	17232	2	1	70	C			
MAR 5+82	MAR 4,82	800	830	1200	1500	3	12.1	2	17234	2	1	97	C	H		
MAR 7+82	MAR 6,82	800	900	2000	100	2	****	*	17236	2	1	****	C			
MAR 8+82	MAR 7,82	900	900	1300	1800	2	****	*	17238	2	1	****	E			
MAR 9+82	MAR 8,82	900	830	2300	400	2	2.2	2	17240	2	1	32	C	N		
MAR 10+82	MAR 9,82	830	830	****	****	2	****	*	17242	2	1	****	E			
MAR 11+82	MAR 10,82	830	1030	900	1030	1	3.7	2	17244	2	1	59	C	H		
MAR 12+82	MAR 11,82	1030	830	1030	1200	1	2.9	2	17246	2	1	117	C			
MAR 13+82	MAR 12,82	830	830	2200	2330	1	5.4	2	17248	2	1	48	C	N		
MAR 17+82	MAR 16,82	830	800	930	1500	1	11.5	2	17250	2	1	97	C			
MAR 18+82	MAR 17,82	800	900	****	****	*	****	*	17252	2	1	****	E			

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/SES

#02

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L		NITRATE AS N MG/L
JAN 3,82	JAN 2,82	104.0	*****	*****	4.01	*****	9.90	U	2.80
JAN 4,82	JAN 3,82	827.0	36.0	*****	4.09	0.1198	2.05		0.59
JAN 5,82	JAN 4,82	305.0	37.7	*****	7.17	U 0.0342	2.20		0.30
JAN 7,82	JAN 6,82	U 68.0	*****	*****	7.24	*****	5.80		2.46
JAN 11,82	JAN 10,82	121.0	*****	*****	7.89	*****	2.50		0.96
JAN 12,82	JAN 11,82	U 88.0	*****	*****	7.05	*****	0.75		1.06
JAN 13,82	JAN 12,82	197.0	30.6	*****	4.28	*****	1.15		0.78
JAN 14,82	JAN 13,82	U 183.0	31.5	*****	4.24	*****	2.25		2.20
JAN 15,82	JAN 14,82	58.0	*****	*****	3.82	*****	1.80		0.98
JAN 18,82	JAN 17,82	343.0	19.3	*****	U 5.78	U 0.0510	*****		*****
JAN 19,82	JAN 18,82	*****	*****	*****	*****	*****	*****		*****
JAN 21,82	JAN 20,82	U 203.0	21.6	*****	U 6.81	*****	1.35		0.60
JAN 23,82	JAN 22,82	1845.0	20.2	*****	4.58	0.0710	2.70		0.42
JAN 24,82	JAN 23,82	47.0	*****	*****	U 6.93	*****	4.70	U	2.99
JAN 28,82	JAN 27,82	72.0	*****	*****	U 5.84	*****	2.90		1.39
JAN 30,82	JAN 29,82	2125.0	12.6	4.73	4.57	0.0586	0.70		0.31
JAN 31,82	JAN 30,82	U 219.0	21.2	*****	4.34	0.0796	1.55		0.42
FEB 1,82	JAN 31,82	U 198.0	*****	*****	4.34	*****	2.25		0.46
FEB 3,82	FEB 2,82	10.0	*****	*****	*****	*****	*****		*****
FEB 4,82	FEB 3,82	U 446.0	18.4	4.58	4.35	0.0740	0.85		0.37
FEB 6,82	FEB 5,82	37.0	*****	*****	U 4.87	*****	2.00		1.12
FEB 7,82	FEB 6,82	662.0	39.2	4.17	4.05	0.1246	1.35		0.98
FEB 9,82	FEB 8,82	448.0	33.9	4.17	4.12	0.1256	1.05		1.15
FEB 10,82	FEB 9,82	20.0	*****	*****	3.81	*****	*****		*****
FEB 11,82	FEB 10,82	23.0	*****	*****	3.78	*****	*****		*****
FEB 14,82	FEB 13,82	545.0	70.0	3.86	3.78	0.2004	1.85		2.12
FEB 19,82	FEB 18,82	769.0	U 79.2	3.80	3.80	0.1906	6.25		1.46
FEB 21,82	FEB 20,82	410.0	170.0	3.46	3.49	0.2058	14.00		3.40
MAR 2,82	MAR 1,82	68.0	*****	*****	U 7.36	*****	*****		*****
MAR 3,82	MAR 2,82	81.0	*****	*****	U 6.85	*****	1.35		0.34
MAR 5,82	MAR 4,82	1929.0	28.2	*****	4.56	0.0940	3.95		0.59
MAR 7,82	MAR 6,82	78.0	*****	*****	U 3.86	*****	U 7.50	U	2.82
MAR 8,82	MAR 7,82	3.0	*****	*****	*****	*****	*****		*****
MAR 9,82	MAR 8,82	U 118.0	*****	*****	U 6.29	*****	2.20		1.59
MAR 10,82	MAR 9,82	*****	*****	*****	*****	*****	*****		*****
MAR 11,82	MAR 10,82	361.0	U 103.0	3.67	3.73	0.2534	9.30		1.15
MAR 12,82	MAR 11,82	558.0	55.8	3.93	3.99	0.1576	4.90		1.06
MAR 13,82	MAR 12,82	U 425.0	53.8	3.90	3.96	0.1588	5.25		0.63
MAR 17,82	MAR 16,82	1840.0	27.0	4.46	4.52	0.0910	3.90		0.62
MAR 18,82	MAR 17,82	10.0	*****	*****	*****	*****	*****		*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/SES

#02

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/SES

#02

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
				01-RAIN 02-SNOW 03-COMP/04-ICE		01-STD. 02-NIPHER		02-APIOS 03-SPECIAL	01-MOE 03-AES 04-ON HYDRO		
MAR 19,82	MAR 18,82	900 1000	2030 2300	1	0.3	2	17254	2	1	34	C N
MAR 21,82	MAR 20,82	800 900	500 900	1	0.3	2	17256	2	1	266	C N
MAR 22,82	MAR 21,82	900 900	900 1800	3	0.5	2	17258	2	1	61	CD
MAR 25,82	MAR 24,82	830 815	1500 1800	1	***	*	17261	2	1	***	CC
MAR 26,82	MAR 25,82	815 830	*** ***	2	6.1	2	17262	2	1	105	CC
MAR 27,82	MAR 26,82	830 900	200 600	2	***	*	17265	2	1	***	CD
MAR 30,82	MAR 29,82	830 830	*** ***	1	***	*	17266	2	1	***	E
MAR 31,82	MAR 30,82	830 1230	1830 2300	1	29.7	2	17268	2	1	101	CE H
APR 1,82	MAR 31,82	1230 1000	1230 1300	1	***	*	17270	2	1	***	E
APR 3,82	APR 2,82	800 900	*** ***	1	9.7	2	17272	2	1	100	CC
APR 6,82	APR 5,82	900 1000	1000 1000	2	16.1	2	17275	2	1	21	CC N
APR 7,82	APR 6,82	1000 830	*** ***	2	1.5	2	17278	2	1	59	CC
APR 10,82	APR 9,82	830 1000	*** ***	3	3.8	2	17280	2	1	180	C N
APR 13,82	APR 12,82	1000 1200	800 1100	1	1.5	2	17282	2	1	66	C HC
APR 17,82	APR 16,82	800 900	1700 200	1	11.2	2	17284	2	1	***	EG
APR 18,82	APR 17,82	900 900	1800 1900	1	1.0	1	17286	2	1	159	C N
APR 20,82	APR 19,82	830 915	2000 915	1	9.1	2	17288	2	1	29	AC N
APR 26,82	APR 25,82	830 830	*** ***	1	***	*	17290	2	1	***	E
APR 27,82	APR 26,82	830 1200	2100 2400	1	2.5	2	17292	2	1	111	ABCD JH

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/SES

#02

PAGE : 5

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAR 19,82	MAR 18,82	U 17.0	*****	*****	*****	*****	*****	*****
MAR 21,82	MAR 20,82	131.0	U 265.0	*****	U 3.43	0.5424	*****	*****
MAR 22,82	MAR 21,82	50.0	*****	*****	U 3.49	*****	*****	*****
MAR 25,82	MAR 24,82	41.0	*****	*****	U 6.73	0.0488	U 18.00	U 3.80
MAR 26,82	MAR 25,82	1056.0	17.8	4.47	4.52	0.0508	U 10.00	> 2.00
MAR 27,82	MAR 26,82	22.0	*****	*****	U 5.88	0.0232	1.55	0.39
MAR 30,82	MAR 29,82	*****	*****	*****	*****	*****	2.70	0.19
MAR 31,82	MAR 30,82	4928.0	19.0	4.39	4.57	0.0458	*****	*****
APR 1,82	MAR 31,82	13.0	*****	*****	*****	*****	2.25	0.33
APR 3,82	APR 2,82	1592.0	14.9	U 6.62	U 6.62	U 0.0226	*****	*****
APR 6,82	APR 5,82	U 577.0	8.8	6.43	6.43	0.0332	2.45	0.28
APR 7,82	APR 6,82	146.0	*****	*****	U 6.80	0.0252	0.60	0.36
APR 10,82	APR 9,82	1125.0	29.7	4.29	4.40	0.0780	2.40	0.17
APR 13,82	APR 12,82	163.0	17.5	*****	U 5.49	U 0.0784	3.25	0.67
APR 17,82	APR 16,82	1600.0	*****	*****	*****	*****	U 18.00	U 3.30
APR 18,82	APR 17,82	261.0	52.2	*****	4.14	0.1084	*****	*****
APR 20,82	APR 19,82	U 447.0	43.6	4.14	4.26	0.0936	7.85	0.79
APR 26,82	APR 25,82	*****	*****	*****	*****	*****	5.65	1.10
APR 27,82	APR 26,82	455.0	40.7	4.48	U 5.04	0.0704	*****	*****
							8.00	1.34

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/SES

#02

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAR 19,82	MAR 18,82	*****	*****	*****	*****	*****	*****	*****
MAR 21,82	MAR 20,82	U 7.35	*****	U 1.000	0.340	U 0.635	U 2.000	U 0.3715
MAR 22,82	MAR 21,82	*****	U 1.26	*****	*****	*****	*****	U 0.3236
MAR 25,82	MAR 24,82	*****	U 1.53	*****	*****	*****	*****	U 0.0002
MAR 26,82	MAR 25,82	0.28	0.08	0.040	0.010	0.040	0.390	0.0302
MAR 27,82	MAR 26,82	*****	0.28	*****	*****	*****	*****	U 0.0013
MAR 30,82	MAR 29,82	*****	*****	*****	*****	*****	*****	*****
MAR 31,82	MAR 30,82	0.67	0.32	0.090	0.030	0.230	0.290	0.0269
APR 1,82	MAR 31,82	*****	*****	*****	*****	*****	*****	*****
APR 3,82	APR 2,82	U 1.44	0.09	0.285	0.030	0.045	0.218	U 0.0002
APR 6,82	APR 5,82	0.83	0.15	0.185	0.030	0.095	0.094	0.0004
APR 7,82	APR 6,82	U 1.44	0.24	U 0.415	0.045	0.155	0.198	U 0.0002
APR 10,82	APR 9,82	0.56	0.09	0.115	0.015	0.050	0.580	0.0398
APR 13,82	APR 12,82	U 4.94	0.91	U 0.665	0.460	0.355	U 3.450	U 0.0032
APR 17,82	APR 16,82	*****	*****	*****	*****	*****	*****	*****
APR 18,82	APR 17,82	0.75	0.34	0.215	0.060	0.170	1.200	0.0724
APR 20,82	APR 19,82	1.19	0.25	0.215	0.040	0.045	0.800	0.0550
APR 26,82	APR 25,82	*****	*****	*****	*****	*****	*****	*****
APR 27,82	APR 26,82	U 2.35	0.45	U 0.460	0.090	0.175	U 1.320	U 0.0091

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHMI

#02

PAGE : 1

REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END HR.	END HR.	START/END HR.	END HR.								
MAY 8,82	MAY 7,82	900	830	200	800	1	4.5	1	17294	2	1	115	C
MAY 20,82	MAY 19,82	800	800	1830	2100	1	8.4	1	17296	2	1	90	C
MAY 22,82	MAY 21,82	800	800	500	700	1	2.3	1	17298	2	1	101	C
MAY 23,82	MAY 22,82	800	800	****	****	1	0.3	1	17300	2	1	93	
MAY 27,82	MAY 26,82	830	830	2400	445	1	2.2	1	17303	2	1	95	CD
MAY 28,82	MAY 27,82	830	830	1900	100	1	40.0	1	17304	2	1	110	M
JUN 1,82	MAY 31,82	830	900	400	830	1	5.4	1	17307	2	1	96	D
JUN 2,82	JUN 1,82	900	1530	****	****	1	6.4	1	17309	2	1	97	
JUN 6,82	JUN 5,82	800	800	900	2100	1	23.1	1	17311	2	1	101	
JUN 8,82	JUN 7,82	830	900	2230	200	1	2.0	1	17313	2	1	92	CD
JUN 16,82	JUN 15,82	830	1000	1900	2200	1	23.5	1	17315	2	1	97	CD
JUN 19,82	JUN 18,82	800	930	800	930	1	14.0	1	17317	2	1	103	HM
JUN 20,82	JUN 19,82	930	830	****	****	1	1.6	1	17319	2	1	85	CD
JUN 21,82	JUN 20,82	830	830	1700	2200	1	16.6	1	17322	2	1	99	C
JUN 22,82	JUN 21,82	830	****	****	****	1	1.2	1	17323	2	1	103	C
JUN 26,82	JUN 25,82	800	930	2300	2400	1	15.6	1	17325	2	1	****	E
JUN 29,82	JUN 28,82	830	1220	1100	1240	1	18.2	1	17327	2	1	99	C
JUL 5,82	JUL 4,82	800	930	1100	1400	1	4.6	1	17329	2	1	103	AC
JUL 11,82	JUL 10,82	800	900	2300	2330	1	4.4	1	17331	2	1	87	DJ
JUL 12,82	JUL 11,82	830	900	600	620	1	3.4	1	17333	2	1	103	C
JUL 15,82	JUL 14,82	830	1010	2300	530	1	7.6	1	17335	2	1	97	
JUL 17,82	JUL 16,82	830	1000	630	800	1	8.2	1	17337	2	1	****	CG
JUL 27,82	JUL 26,82	830	930	300	430	1	2.6	1	17339	2	1	112	C
JUL 28,82	JUL 27,82	930	900	200	600	1	4.8	1	17341	2	1	88	C
JUL 31,82	JUL 30,82	800	1000	2100	2130	1	5.0	1	17343	2	1	64	C
AUG 2,82	AUG 1,82	800	900	630	800	1	25.0	1	17345	2	1	89	ADJ
AUG 8,82	AUG 7,82	800	1100	400	600	1	24.6	1	17347	2	1	134	AD
AUG 20,82	AUG 19,82	830	830	400	530	1	2.4	1	17349	2	1	101	ACD
AUG 21,82	AUG 20,82	830	830	700	800	1	3.0	1	17351	2	1	65	CD
AUG 23,82	AUG 22,82	830	830	1400	1800	1	2.2	1	17353	2	1	78	C
AUG 25,82	AUG 24,82	830	830	2230	200	1	39.0	1	17355	2	1	78	CD
AUG 30,82	AUG 29,82	830	830	1700	2300	1	4.2	1	17357	2	1	95	C
SEP 3,82	SEP 2,82	830	930	1700	1900	1	6.4	1	17358	2	1	83	C
SEP 7,82	SEP 6,82	830	800	1100	1300	1	0.4	1	17360	2	1	108	C
SEP 15,82	SEP 14,82	830	1230	1700	2000	1	6.4	1	17362	2	1	42	CD
SEP 18,82	SEP 17,82	800	900	2200	100	1	11.0	1	17364	2	1	93	CD
SEP 22,82	SEP 21,82	930	830	400	830	1	4.6	1	17366	2	1	99	AC
SEP 23,82	SEP 22,82	830	800	830	800	1	18.0	1	17368	2	1	98	C
SEP 24,82	SEP 23,82	800	830	400	830	1	1.8	1	17376	2	1	98	T
SEP 25,82	SEP 24,82	800	800	2300	1300	1	20.7	1	17370	2	1	58	CD
											1	99	T

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 8,82	MAY 7,82	332.0	18.6	5.00	5.73	0.0756	3.30	0.41
MAY 20,82	MAY 19,82	485.0	41.0	4.34	4.59	0.0932	7.55	0.81
MAY 22,82	MAY 21,82	149.0	*****	*****	3.41	0.4788	15.05	3.70
MAY 23,82	MAY 22,82	18.0	*****	*****	4.42	0.1008	*****	*****
MAY 27,82	MAY 26,82	134.0	*****	*****	3.70	0.2720	10.20	1.43
MAY 28,82	MAY 27,82	2826.0	35.4	4.08	4.19	0.0952	3.45	0.44
JUN 1,82	MAY 31,82	334.0	33.8	4.08	4.20	0.0954	3.15	0.36
JUN 2,82	JUN 1,82	401.0	32.8	4.14	4.23	0.0966	3.15	0.40
JUN 6,82	JUN 5,82	1496.0	10.6	4.54	4.69	0.0402	0.90	0.14
JUN 8,82	JUN 7,82	119.0	*****	*****	3.66	0.2720	17.40	1.53
JUN 16,82	JUN 15,82	1471.0	26.6	4.34	4.39	0.0654	3.20	0.43
JUN 19,82	JUN 18,82	911.0	39.1	4.10	4.01	0.0964	4.20	0.43
JUN 20,82	JUN 19,82	88.0	*****	*****	3.97	0.1120	4.65	0.26
JUN 21,82	JUN 20,82	1102.0	22.0	4.37	4.32	0.0568	2.35	0.36
JUN 22,82	JUN 21,82	*****	*****	*****	*****	*****	*****	*****
JUN 26,82	JUN 25,82	995.0	43.8	4.08	4.07	0.1044	5.25	0.89
JUN 29,82	JUN 28,82	1205.0	63.0	3.80	3.87	0.1642	5.70	0.65
JUL 5,82	JUL 4,82	258.0	97.5	3.69	3.71	0.2400	9.95	1.69
JUL 11,82	JUL 10,82	291.0	93.0	3.32	3.36	0.4960	U 18.75	U 2.05
JUL 12,82	JUL 11,82	212.0	31.5	*****	4.30	0.0736	3.80	0.47
JUL 15,82	JUL 14,82	383.0	64.5	3.85	3.86	0.1600	6.60	0.82
JUL 17,82	JUL 16,82	593.0	32.2	4.17	4.29	0.0754	3.25	0.53
JUL 27,82	JUL 26,82	148.0	25.7	*****	5.15	0.0418	3.95	1.11
JUL 28,82	JUL 27,82	200.0	59.5	3.89	3.84	0.1376	6.80	1.00
JUL 31,82	JUL 30,82	286.0	70.5	3.93	3.89	0.1406	9.40	1.19
AUG 2,82	AUG 1,82	2151.0	21.6	4.36	4.47	0.0490	2.35	0.30
AUG 8,82	AUG 7,82	1598.0	50.5	3.92	4.10	0.1444	5.10	0.44
AUG 20,82	AUG 19,82	100.0	21.9	*****	4.43	0.0566	3.90	0.59
AUG 21,82	AUG 20,82	151.0	8.9	*****	6.61	0.0272	0.30	0.14
AUG 23,82	AUG 22,82	111.0	49.2	*****	4.01	0.1222	7.05	0.86
AUG 25,82	AUG 24,82	2391.0	21.9	4.32	4.36	0.0660	2.20	0.25
AUG 30,82	AUG 29,82	224.0	*****	4.27	4.26	0.0752	3.55	0.43
SEP 3,82	SEP 2,82	446.0	26.0	4.35	4.30	0.0872	2.95	0.72
SEP 7,82	SEP 6,82	U 11.0	*****	*****	*****	*****	*****	*****
SEP 15,82	SEP 14,82	384.0	39.1	4.14	4.10	0.0982	4.80	0.77
SEP 18,82	SEP 17,82	703.0	35.2	4.11	4.14	0.1006	3.90	0.74
SEP 22,82	SEP 21,82	290.0	40.0	4.03	3.92	0.1124	3.00	0.83
SEP 23,82	SEP 22,82	1140.0	31.0	4.12	4.02	0.0884	2.60	0.42
SEP 24,82	SEP 23,82	68.0	*****	*****	3.97	0.1188	7.70	1.20
SEP 25,82	SEP 24,82	1317.0	43.5	4.00	3.90	0.1218	4.10	0.65

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHMI

#02

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 8,82	MAY 7,82	0.91	0.23	0.190	0.150	0.135	0.720	0.0019
MAY 20,82	MAY 19,82	1.77	0.71	0.320	0.140	0.065	1.200	0.0257
MAY 22,82	MAY 21,82	0.71	0.81	0.125	0.115	0.105	1.670	0.3890
MAY 23,82	MAY 22,82	*****	*****	*****	*****	*****	*****	0.0380
MAY 27,82	MAY 26,82	0.44	0.28	0.085	0.040	0.035	0.820	0.1995
MAY 28,82	MAY 27,82	0.06	0.05	0.010	<T 0.010	<T 0.010	0.258	0.0646
JUN 1,82	MAY 31,82	0.11	0.09	0.025	0.030	0.030	0.226	0.0631
JUN 2,82	JUN 1,82	0.10	0.08	0.015	0.025	0.015	0.368	0.0589
JUN 6,82	JUN 5,82	0.06	0.01	0.010	<T 0.010	<T 0.010	0.158	0.0204
JUN 8,82	JUN 7,82	1.32	0.48	0.180	0.140	0.185	1.270	0.2188
JUN 16,82	JUN 15,82	0.48	0.09	0.090	0.120	0.030	0.440	0.0407
JUN 19,82	JUN 18,82	0.21	0.26	0.035	U 0.280	U 0.135	0.560	0.0977
JUN 20,82	JUN 19,82	*****	0.16	*****	*****	*****	*****	0.1072
JUN 21,82	JUN 20,82	0.17	0.05	0.025	0.075	0.015	0.500	0.0479
JUN 22,82	JUN 21,82	*****	*****	*****	*****	*****	*****	*****
JUN 26,82	JUN 25,82	0.63	0.13	0.115	0.060	0.035	0.780	0.0851
JUN 29,82	JUN 28,82	0.12	0.13	0.015	0.020	0.025	0.288	0.1349
JUL 5,82	JUL 4,82	1.00	0.38	0.205	0.040	0.060	1.060	0.1950
JUL 11,82	JUL 10,82	0.76	0.59	0.135	0.065	0.075	0.950	0.4365
JUL 12,82	JUL 11,82	0.47	0.20	0.110	0.055	0.035	0.500	0.0501
JUL 15,82	JUL 14,82	0.37	0.16	0.100	0.070	0.025	0.590	0.1380
JUL 17,82	JUL 16,82	0.46	0.16	0.095	0.030	0.050	0.370	0.0513
JUL 27,82	JUL 26,82	0.95	0.35	0.120	0.160	0.120	1.210	0.0071
JUL 28,82	JUL 27,82	0.71	0.24	0.130	U 0.105	U 0.045	0.690	0.1445
JUL 31,82	JUL 30,82	1.44	0.39	0.425	0.110	0.035	0.860	0.1288
AUG 2,82	AUG 1,82	0.26	0.10	0.035	0.075	0.025	0.364	0.0339
AUG 8,82	AUG 7,82	0.13	0.13	0.020	0.055	0.030	0.370	0.0794
AUG 20,82	AUG 19,82	0.72	0.14	0.170	0.150	0.045	0.540	0.0372
AUG 21,82	AUG 20,82	0.27	0.33	0.055	0.355	0.240	0.332	0.0002
AUG 23,82	AUG 22,82	0.94	0.28	0.205	0.235	0.070	0.890	0.0977
AUG 25,82	AUG 24,82	0.06	<T 0.02	0.015	0.055	0.015	0.254	0.0437
AUG 30,82	AUG 29,82	0.37	0.21	0.110	0.045	0.225	0.252	0.0550
SEP 3,82	SEP 2,82	0.51	0.17	0.110	0.045	0.045	0.590	0.0501
SEP 7,82	SEP 6,82	*****	*****	*****	*****	*****	*****	*****
SEP 15,82	SEP 14,82	0.59	0.24	0.085	0.050	0.055	0.970	0.0794
SEP 18,82	SEP 17,82	0.42	0.31	0.090	0.225	0.100	0.162	0.0724
SEP 22,82	SEP 21,82	0.23	0.13	0.025	0.120	0.125	0.368	0.1202
SEP 23,82	SEP 22,82	0.11	0.19	0.020	0.050	0.025	0.152	0.0955
SEP 24,82	SEP 23,82	> 2.00	0.41	0.365	0.150	0.170	*****	0.1072
SEP 25,82	SEP 24,82	0.15	0.10	0.025	0.050	0.035	0.640	0.1259

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT		SUBPROJECT		SAMPLER EFFICI- ENCY (%)	COMMENTS	
		START/END HR. HR.	START/END HR. HR.	01-RAIN	02-SNOW					01-STD.	02-APIOS	03-SPECIAL	01-MOE		03-AES	04-ON HYDRO
SEP 26,82	SEP 25,82	800 800	900 1300	1	2.8	1	17378	2	1	74	CD	T				
SEP 27,82	SEP 26,82	830 1000	2100 1000	1	27.0	1	17372	2	1	93	C					
SEP 28,82	SEP 27,82	1000 945	1000 1400	1	5.2	1	17374	2	1	90	C					
OCT 8,82	OCT 7,82	830 830	900 1600	1	8.4	1	17380	2	1	83	C					
OCT 11,82	OCT 10,82	800 810	**** ****	1	6.2	1	17382	2	1	100	C					
OCT 15,82	OCT 14,82	830 830	1200 1700	1	3.8	1	17384	2	1	92	C	JH				
OCT 16,82	OCT 15,82	800 900	**** ****	2	****	*	17386	2	1	****	D	HM				
OCT 17,82	OCT 16,82	900 900	900 200	3	24.8	1	17388	2	1	84	C	HM				
OCT 18,82	OCT 17,82	900 1000	1200 1400	1	0.6	1	17390	2	1	7	C	N				
OCT 21,82	OCT 20,82	830 900	900 1200	1	5.8	1	17392	2	1	101	C					
OCT 22,82	OCT 21,82	830 1130	600 730	1	0.4	1	17394	2	1	19	C	N				
OCT 31,82	OCT 30,82	830 945	1100 945	1	6.6	1	17396	2	1	107	C					
NOV 2,82	NOV 1,82	945 930	2200 230	1	21.2	1	17398	2	1	100	C	J				
NOV 3,82	NOV 2,82	930 1000	2000 2330	1	11.8	1	17400	2	1	96						
NOV 4,82	NOV 3,82	1000 845	500 845	1	4.4	1	17402	2	1	91						
NOV 6,82	NOV 5,82	830 900	900 1800	2	****	*	17404	2	1	****	CD					
NOV 10,82	NOV 9,82	845 1045	100 1045	1	1.2	1	17406	2	1	61	CD					
NOV 11,82	NOV 10,82	1045 900	**** ****	1	8.6	1	17408	2	1	98	C					
NOV 12,82	NOV 11,82	900 830	1400 1530	1	14.6	1	17410	2	1	96	C					
NOV 13,82	NOV 12,82	830 800	830 1200	1	9.9	2	17412	2	1	111	C					
NOV 20,82	NOV 19,82	800 900	100 900	1	11.9	2	17414	2	1	101		C				
NOV 21,82	NOV 20,82	900 900	**** ****	1	20.7	2	17416	2	1	97	CD					
NOV 22,82	NOV 21,82	900 930	900 1400	1	0.5	2	17418	2	1	53	CD					
NOV 24,82	NOV 23,82	800 815	830 2000	1	16.3	2	17420	2	1	98	C					
NOV 27,82	NOV 26,82	800 800	900 1100	2	4.7	2	17422	2	1	18		N				
NOV 29,82	NOV 28,82	800 830	1200 630	1	17.1	2	17424	2	1	84	C					
NOV 30,82	NOV 29,82	830 830	930 2000	1	0.5	2	17426	2	1	24		N				
DEC 3,82	DEC 2,82	800 800	1000 2000	1	1.7	2	17429	2	1	133	C	N				
DEC 4,82	DEC 3,82	800 800	2300 100	1	8.9	2	17432	2	1	107						
DEC 5,82	DEC 4,82	800 900	300 800	1	2.1	2	17435	2	1	108						
DEC 6,82	DEC 5,82	900 1000	**** ****	1	10.9	2	17438	2	1	100						
DEC 7,82	DEC 6,82	830 1230	**** ****	1	****	*	17441	2	1	****	C					
DEC 9,82	DEC 8,82	800 930	1830 830	2	7.9	2	17444	2	1	****	IKE					
DEC 10,82	DEC 9,82	930 1000	530 630	2	****	*	17447	2	1	****	EK					
DEC 12,82	DEC 11,82	830 830	**** ****	2	****	*	17450	2	1	****	IKE					
DEC 13,82	DEC 12,82	830 900	**** ****	2	0.7	2	17453	2	1	****	IKE					
DEC 15,82	DEC 14,82	830 1400	**** ****	1	0.7	2	17456	2	1	102	C					
DEC 16,82	DEC 15,82	1400 900	1400 900	1	20.1	2	17459	2	1	101						
DEC 17,82	DEC 16,82	900 900	**** ****	1	****	*	17462	2	1	****	KE					
DEC 19,82	DEC 18,82	800 800	**** ****	1	4.3	2	17465	2	1	69	D	J				

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

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REMOVAL DATE	EXPOSURE DATE	VOLUME	CONDUCT.	PH FIELD	PH LAB	TOTAL H+ TO PH8.3	SULPHATE	NITRATE AS N
ML	UMHO/CM	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
SEP 26.82	SEP 25,82	133.0	U 120.0	*****	3.46	U 0.3220	U 11.15	U 2.37
SEP 27.82	SEP 26,82	1619.0	17.5	4.43	4.31	0.0500	1.50	0.22
SEP 28.82	SEP 27,82	300.0	31.0	4.17	4.06	0.0922	3.00	0.41
OCT 8.82	OCT 7,82	447.0	35.6	4.14	4.07	0.1204	4.35	0.39
OCT 11.82	OCT 10,82	401.0	55.0	3.95	3.84	0.1586	5.25	0.83
OCT 15.82	OCT 14,82	226.0	*****	5.05	5.55	0.0412	3.70	0.45
OCT 16.82	OCT 15,82	814.0	3.2	5.78	5.66	0.0372	0.20	0.01
OCT 17.82	OCT 16,82	1341.0	2.6	5.40	5.49	0.0286	0.20	0.01
OCT 18.82	OCT 17,82	U 3.0	*****	*****	*****	*****	*****	*****
OCT 21.82	OCT 20,82	377.0	23.9	4.33	4.28	0.0892	2.85	0.26
OCT 22.82	OCT 21,82	U 5.0	*****	*****	*****	*****	*****	*****
OCT 31.82	OCT 30,82	453.0	23.5	4.54	4.34	0.0704	2.90	0.45
NOV 2.82	NOV 1,82	1366.0	11.6	3.99	4.59	0.0430	0.95	0.13
NOV 3.82	NOV 2,82	728.0	18.9	4.40	4.34	0.0648	1.65	0.29
NOV 4.82	NOV 3,82	257.0	*****	4.12	4.08	0.1002	2.05	0.80
NOV 6.82	NOV 5,82	12.0	*****	*****	U 5.78	0.0366	*****	*****
NOV 10.82	NOV 9,82	47.0	*****	*****	3.65	0.2320	6.80	2.57
NOV 11.82	NOV 10,82	543.0	30.7	4.15	4.12	0.1026	3.05	0.52
NOV 12.82	NOV 11,82	900.0	21.5	4.32	4.28	0.0766	2.35	0.30
NOV 13.82	NOV 12,82	705.0	16.0	4.44	4.43	0.0654	1.60	0.20
NOV 20.82	NOV 19,82	776.0	37.0	4.32	4.27	0.0684	2.10	0.27
NOV 21.82	NOV 20,82	1296.0	18.0	4.46	4.46	0.0594	2.40	0.32
NOV 22.82	NOV 21,82	17.0	*****	*****	U 6.33	U 0.0272	*****	*****
NOV 24.82	NOV 23,82	1030.0	18.5	4.42	4.45	0.0676	1.55	0.20
NOV 27.82	NOV 26,82	U 56.0	*****	*****	U 6.28	U 0.0258	1.20	0.24
NOV 29.82	NOV 28,82	927.0	28.5	4.23	4.29	0.0950	2.30	0.36
NOV 30.82	NOV 29,82	U 8.0	*****	*****	*****	*****	*****	*****
DEC 3.82	DEC 2,82	146.0	*****	*****	3.97	0.1134	4.35	0.44
DEC 4.82	DEC 3,82	614.0	19.3	4.38	4.38	0.0574	1.70	0.26
DEC 5.82	DEC 4,82	146.0	*****	*****	4.14	0.0796	2.65	0.41
DEC 6.82	DEC 5,82	701.0	14.5	4.56	4.52	0.0520	1.30	0.12
DEC 7.82	DEC 6,82	12.0	*****	*****	*****	*****	*****	*****
DEC 9.82	DEC 8,82	*****	*****	*****	*****	*****	*****	*****
DEC 10.82	DEC 9,82	*****	*****	*****	*****	*****	*****	*****
DEC 12.82	DEC 11,82	*****	*****	*****	*****	*****	*****	*****
DEC 13.82	DEC 12,82	*****	*****	*****	*****	*****	*****	*****
DEC 15.82	DEC 14,82	46.0	*****	*****	3.97	0.1572	6.25	1.14
DEC 16.82	DEC 15,82	1302.0	17.4	4.46	4.53	0.0546	1.20	0.25
DEC 17.82	DEC 16,82	*****	*****	*****	*****	*****	*****	*****
DEC 19.82	DEC 18,82	192.0	71.8	3.64	4.07	0.1188	8.90	1.29

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHM

#02

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 26,82	SEP 25,82	0.62	0.47	0.130	0.160	0.110	U 1.660	0.3467
SEP 27,82	SEP 26,82	0.04	0.07	0.005	0.010	0.005	0.190	0.0490
SEP 28,82	SEP 27,82	0.19	0.16	0.025	0.020	0.025	0.370	0.0871
OCT 8,82	OCT 7,82	0.44	0.21	0.075	0.085	0.095	0.470	0.0851
OCT 11,82	OCT 10,82	0.43	0.34	0.065	0.215	0.150	0.700	0.1445
OCT 15,82	OCT 14,82	0.90	0.48	0.175	0.090	0.065	0.750	0.0028
OCT 16,82	OCT 15,82	0.13	0.13	0.015	0.040	0.065	0.112	0.0022
OCT 17,82	OCT 16,82	0.07	<T 0.02	0.005	0.015	<W 0.005	0.060	0.0032
OCT 18,82	OCT 17,82	*****	*****	*****	*****	*****	*****	*****
OCT 21,82	OCT 20,82	0.37	0.37	0.080	0.030	0.210	0.204	0.0525
OCT 22,82	OCT 21,82	*****	*****	*****	*****	*****	*****	*****
OCT 31,82	OCT 30,82	0.70	0.15	0.105	0.050	0.090	0.284	0.0457
NOV 2,82	NOV 1,82	0.08	0.04	0.020	0.005	0.010	0.080	0.0257
NOV 3,82	NOV 2,82	0.08	0.10	0.015	0.025	0.075	0.228	0.0457
NOV 4,82	NOV 3,82	0.15	0.13	0.025	0.055	0.040	0.390	0.0832
NOV 6,82	NOV 5,82	*****	*****	*****	*****	*****	*****	U 0.0017
NOV 10,82	NOV 9,82	*****	0.73	*****	*****	*****	*****	0.2239
NOV 11,82	NOV 10,82	0.34	0.27	0.060	0.045	0.145	0.232	0.0759
NOV 12,82	NOV 11,82	0.22	0.14	0.045	0.050	0.090	0.300	0.0525
NOV 13,82	NOV 12,82	0.12	0.19	0.020	0.030	0.120	0.228	0.0372
NOV 20,82	NOV 19,82	0.13	0.13	0.020	0.020	0.030	0.094	0.0537
NOV 21,82	NOV 20,82	0.49	0.06	0.095	0.045	0.045	0.214	0.0347
NOV 22,82	NOV 21,82	*****	*****	*****	*****	*****	*****	U 0.0005
NOV 24,82	NOV 23,82	0.04	0.05	<T 0.005	<W 0.005	<W 0.005	0.114	0.0355
NOV 27,82	NOV 26,82	*****	0.02	*****	*****	*****	*****	U 0.0005
NOV 29,82	NOV 28,82	0.09	0.08	0.015	0.015	0.020	0.162	0.0513
NOV 30,82	NOV 29,82	*****	*****	*****	*****	*****	*****	*****
DEC 3,82	DEC 2,82	0.31	0.89	0.155	0.075	0.610	0.192	0.1072
DEC 4,82	DEC 3,82	0.06	0.22	0.025	0.015	0.100	0.156	0.0417
DEC 5,82	DEC 4,82	0.24	0.29	0.055	0.115	0.160	0.126	0.0724
DEC 6,82	DEC 5,82	0.09	0.12	0.015	<T 0.005	0.045	0.084	0.0302
DEC 7,82	DEC 6,82	*****	*****	*****	*****	*****	*****	*****
DEC 9,82	DEC 8,82	*****	*****	*****	*****	*****	*****	*****
DEC 10,82	DEC 9,82	*****	*****	*****	*****	*****	*****	*****
DEC 12,82	DEC 11,82	*****	*****	*****	*****	*****	*****	*****
DEC 13,82	DEC 12,82	*****	*****	*****	*****	*****	*****	*****
DEC 15,82	DEC 14,82	*****	0.47	*****	*****	*****	*****	0.1072
DEC 16,82	DEC 15,82	0.04	0.06	0.010	0.025	0.035	0.082	0.0295
DEC 17,82	DEC 16,82	*****	*****	*****	*****	*****	*****	*****
DEC 19,82	DEC 18,82	U 2.00	0.79	U 0.500	0.090	0.210	0.920	0.0851

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
		START/END HR.	END/HR.									FIELD	OFFICE
DEC 20,82	DEC 19,82	800	900	****	****	2	01-RAIN	17468	2	1	100	C	
DEC 21,82	DEC 20,82	900	1030	****	****	2	01-STD.	17471	2	1	****	EK	
DEC 22,82	DEC 21,82	1030	1400	****	****	2	02-SNOW	17474	2	1	31	CE	N
DEC 24,82	DEC 23,82	800	900	****	****	1	02-NIPHER	17477	2	1	101	CD	
DEC 25,82	DEC 24,82	900	900	****	****	1	03-COMP/04-ICE	17480	2	1	108		
DEC 26,82	DEC 25,82	900	900	****	****	1	03-SPECIAL	17483	2	1	358		N
DEC 28,82	DEC 27,82	800	800	****	****	1	03-AES	17486	2	1	98	D	
DEC 30,82	DEC 29,82	800	800	****	****	2	04-ON HYDRO	17489	2	1	****	E	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
DEC 20,82	DEC 19,82	1326.0	12.4	4.60	4.57	0.0480	0.70	0.25
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	*****
DEC 22,82	DEC 21,82	U 6.0	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	306.0	36.0	4.13	4.16	0.1024	3.35	0.46
DEC 25,82	DEC 24,82	1199.0	15.6	4.43	4.59	0.0498	1.70	0.16
DEC 26,82	DEC 25,82	92.0	*****	*****	4.93	0.0356	1.30	0.15
DEC 28,82	DEC 27,82	447.0	12.9	4.77	4.74	0.0366	1.60	0.18
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
DEC 20,82	DEC 19,82	0.02	0.04	0.005	0.010	0.005	0.126	0.0269
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	*****
DEC 22,82	DEC 21,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	0.12	0.26	0.030	0.055	0.120	0.310	0.0692
DEC 25,82	DEC 24,82	0.11	0.46	0.040	0.200	0.310	0.168	0.0257
DEC 26,82	DEC 25,82	0.23	0.19	0.040	0.100	0.140	*****	0.0117
DEC 28,82	DEC 27,82	0.35	0.14	0.075	0.035	0.070	0.092	0.0182
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/SES

#01

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
JAN 14,82	JAN 13,82	800 800	**** ****	2	4.6	2	18081	2	1	34	D	N
JAN 18,82	JAN 17,82	800 800	**** ****	2	3.4	2	18082	2	1	24	C	N
JAN 23,82	JAN 22,82	800 800	**** ****	3	16.4	2	18083	2	1	60	C	
JAN 30,82	JAN 29,82	800 800	**** ****	2	15.1	2	18084	2	1	74	C	
FEB 1,82	JAN 31,82	800 800	**** ****	2	17.3	2	18085	2	1	6	C	N
FEB 4,82	FEB 3,82	800 800	**** ****	2	13.1	2	18086	2	1	16	C	N
FEB 6,82	FEB 5,82	800 930	**** ****	2	5.1	2	18087	2	1	74	C	
FEB 9,82	FEB 8,82	800 800	**** ****	2	3.2	2	18088	2	1	70	C	
FEB 14,82	FEB 13,82	800 800	**** ****	2	3.6	2	18089	2	1	53	C	
FEB 19,82	FEB 18,82	800 800	**** ****	3	5.3	2	18090	2	1	97	C	
FEB 21,82	FEB 20,82	800 800	**** ****	1	2.4	2	18091	2	1	56	C	
MAR 5,82	MAR 4,82	800 800	**** ****	3	15.3	2	18092	2	1	82	C	
MAR 9,82	MAR 8,82	800 800	**** ****	2	3.1	2	18093	2	1	29	C	N
MAR 11,82	MAR 10,82	800 800	**** ****	1	2.1	2	18094	2	1	34	C	N
MAR 12,82	MAR 11,82	800 800	**** ****	1	3.4	2	18095	2	1	113	C	
MAR 13,82	MAR 12,82	800 800	**** ****	1	4.8	2	18096	2	1	137	CD	N
MAR 17,82	MAR 16,82	800 800	**** ****	1	10.1	2	18097	2	1	90	C	
MAR 26,82	MAR 25,82	800 1000	**** ****	2	6.2	2	18098	2	1	64	C	
MAR 31,82	MAR 30,82	800 800	**** ****	1	23.1	2	18099	2	1	103	C	JH
APR 3,82	APR 2,82	800 800	**** ****	1	9.6	2	18100	2	1	100	C	
APR 6,82	APR 5,82	800 900	**** ****	2	18.4	2	18101	2	1	1	F	N
APR 11,82	APR 10,82	800 800	**** ****	2	6.3	2	18102	2	1	79	A	
APR 13,82	APR 12,82	800 800	**** ****	1	****	2	18103	2	1	****	ACD	H
APR 17,82	APR 16,82	800 800	**** ****	1	10.7	1	18104	2	1	109	AC	HM
APR 18,82	APR 17,82	800 800	**** ****	1	0.5	2	18105	2	1	240	C	N
APR 20,82	APR 19,82	800 800	**** ****	1	3.3	2	18106	2	1	134	AC	N
APR 21,82	APR 20,82	800 800	**** ****	1	1.8	2	18107	2	1	161	NJ	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/SES

#01

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 14,82	JAN 13,82	U 263.0	31.7	*****	4.13	0.1038	1.00	1.05
JAN 18,82	JAN 17,82	U 136.0	28.2	*****	4.85	*****	2.25	1.16
JAN 23,82	JAN 22,82	1626.0	24.5	*****	4.26	0.0898	2.15	0.34
JAN 30,82	JAN 29,82	1854.0	19.0	4.77	4.54	0.0726	U 1.40	0.58
FEB 1,82	JAN 31,82	U 185.0	*****	*****	4.25	*****	3.00	0.56
FEB 4,82	FEB 3,82	U 350.0	30.2	4.32	4.22	U 0.1004	U 2.15	U 0.72
FEB 6,82	FEB 5,82	627.0	39.3	4.21	4.13	0.1196	2.10	1.14
FEB 9,82	FEB 8,82	368.0	46.1	4.08	3.99	0.1402	1.60	1.41
FEB 14,82	FEB 13,82	313.0	U 122.0	*****	U 3.59	U 0.3180	U 5.35	U 3.60
FEB 19,82	FEB 18,82	848.0	U 78.0	3.74	3.74	0.2232	5.25	1.18
FEB 21,82	FEB 20,82	221.0	60.9	*****	4.04	0.1520	6.20	1.51
MAR 5,82	MAR 4,82	2060.0	33.5	*****	4.30	0.1092	3.75	0.51
MAR 9,82	MAR 8,82	U 152.0	*****	*****	4.17	*****	1.75	1.45
MAR 11,82	MAR 10,82	U 119.0	*****	*****	3.64	*****	U 15.80	U 2.89
MAR 12,82	MAR 11,82	633.0	39.8	4.08	4.13	0.1232	3.50	0.72
MAR 13,82	MAR 12,82	1084.0	49.2	3.93	4.00	0.1484	4.65	0.56
MAR 17,82	MAR 16,82	1503.0	40.7	4.19	4.24	0.1204	4.45	0.76
MAR 26,82	MAR 25,82	654.0	34.6	4.31	4.39	0.0688	4.95	0.95
MAR 31,82	MAR 30,82	3920.0	17.5	4.74	5.16	0.0394	2.60	0.35
APR 3,82	APR 2,82	1584.0	16.5	4.93	5.22	0.0462	2.90	0.37
APR 6,82	APR 5,82	U 36.0	*****	*****	U 7.06	0.0170	0.75	0.14
APR 11,82	APR 10,82	819.0	40.5	4.12	4.24	0.0966	4.50	0.77
APR 13,82	APR 12,82	176.0	*****	*****	U 6.50	U 0.0588	U 19.15	U 2.87
APR 17,82	APR 16,82	1921.0	30.3	*****	U 6.51	0.0658	5.00	0.47
APR 18,82	APR 17,82	197.0	89.8	*****	3.86	0.1974	11.80	1.25
APR 20,82	APR 19,82	730.0	53.5	4.03	4.28	0.1152	7.85	1.34
APR 21,82	APR 20,82	477.0	44.5	U 5.39	4.12	0.1126	3.90	0.68

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLDRIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAR MG/L
JAN 14,82	JAN 13,82	0.56	0.51	0.085	0.040	0.120	0.220	0.0741
JAN 18,82	JAN 17,82	*****	U 1.50	*****	*****	*****	0.360	0.0141
JAN 23,82	JAN 22,82	0.33	0.14	0.050	0.020	0.070	0.118	0.0550
JAN 30,82	JAN 29,82	U 0.53	U 0.44	U 0.065	0.050	U 0.290	0.270	0.0288
FEB 1,82	JAN 31,82	0.47	0.38	0.050	0.090	0.200	0.410	0.0562
FEB 4,82	FEB 3,82	U 0.47	U 0.58	U 0.050	0.035	U 0.260	U 0.440	0.0603
FEB 6,82	FEB 5,82	U 0.98	0.78	0.075	0.050	0.315	0.290	0.0741
FEB 9,82	FEB 8,82	0.41	0.63	0.055	0.035	0.395	U 0.370	0.1023
FEB 14,82	FEB 13,82	0.46	0.98	0.130	0.050	U 0.700	U 1.000	U 0.2570
FEB 19,82	FEB 18,82	0.28	0.46	0.025	0.050	0.115	0.320	0.1820
FEB 21,82	FEB 20,82	0.37	0.32	0.025	0.065	0.080	2.040	0.0912
MAR 5,82	MAR 4,82	0.69	0.24	0.125	0.035	0.115	0.410	0.0501
MAR 9,82	MAR 8,82	U 1.18	0.83	0.190	0.025	0.420	0.294	0.0576
MAR 11,82	MAR 10,82	U 2.60	U 2.33	U 0.390	0.160	U 1.400	U 2.650	0.2291
MAR 12,82	MAR 11,82	0.24	0.26	0.015	0.030	0.065	0.810	0.0741
MAR 13,82	MAR 12,82	0.37	0.31	0.055	0.025	0.200	0.394	0.1000
MAR 17,82	MAR 16,82	0.98	0.22	0.140	0.075	0.095	0.470	0.0575
MAR 26,82	MAR 25,82	0.98	0.22	0.160	0.045	0.090	1.130	0.0407
MAR 31,82	MAR 30,82	0.69	0.37	0.110	0.040	0.275	0.312	0.0069
APR 3,82	APR 2,82	0.86	0.13	0.150	0.045	0.050	0.334	0.0060
APR 6,82	APR 5,82	*****	0.99	*****	*****	*****	*****	U 0.0001
APR 11,82	APR 10,82	0.34	0.11	0.060	0.045	0.050	0.920	0.0575
APR 13,82	APR 12,82	U 5.48	1.17	U 0.640	0.470	0.435	U 4.800	U 0.0003
APR 17,82	APR 16,82	0.66	0.37	0.150	U 0.460	U 0.260	U 2.800	U 0.0003
APR 18,82	APR 17,82	1.19	0.58	0.315	0.185	0.350	1.310	0.1380
APR 20,82	APR 19,82	1.50	0.36	0.305	0.215	0.205	1.540	0.0525
APR 21,82	APR 20,82	0.16	0.13	0.020	0.045	0.025	0.540	0.0759

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

#01

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END	HR. HR.									
MAY 8,82	MAY 7,82	800 800	**** ****	1	4.6	1	18108	2	1	78	C	
MAY 20,82	MAY 19,82	800 800	**** ****	1	1.7	1	18109	2	1	66	C	
MAY 27,82	MAY 26,82	800 800	**** ****	1	1.4	1	18110	2	1	96		
MAY 28,82	MAY 27,82	800 800	**** ****	1	****	1	18111	2	1	****	M	
MAY 31,82	MAY 30,82	800 800	**** ****	1	1.3	1	18112	2	1	73	B	
JUN 1,82	MAY 31,82	800 800	**** ****	1	11.5	1	18113	2	1	101		
JUN 2,82	JUN 1,82	800 800	**** ****	1	12.5	1	18114	2	1	95		
JUN 6,82	JUN 5,82	800 800	**** ****	1	20.2	1	18115	2	1	99		
JUN 8,82	JUN 7,82	800 800	**** ****	1	1.6	1	18116	2	1	79	CD	
JUN 13,82	JUN 12,82	900 900	**** ****	1	4.0	1	18117	2	1	81	CD	
JUN 16,82	JUN 15,82	800 800	**** ****	1	30.0	1	18118	2	1	99	T	
JUN 20,82	JUN 19,82	900 900	**** ****	1	13.8	1	18120	2	1	93	CD	
JUN 21,82	JUN 20,82	900 900	**** ****	1	13.2	1	18122	2	1	91	AD	
JUN 22,82	JUN 21,82	900 900	**** ****	1	2.4	1	18124	2	1	59	CD	
JUN 26,82	JUN 25,82	900 900	**** ****	1	2.6	1	18128	2	1	93	AC	
JUN 27,82	JUN 26,82	900 900	**** ****	1	0.6	1	18129	2	1	31	CD	
JUN 29,82	JUN 28,82	900 900	**** ****	1	19.6	1	18130	2	1	66	N	
JUL 4,82	JUL 3,82	900 900	**** ****	1	2.0	1	18131	2	1	92	CD	
JUL 5,82	JUL 4,82	900 900	**** ****	1	4.8	1	18132	2	1	105	CD	
JUL 11,82	JUL 10,82	900 900	**** ****	1	1.0	1	18133	2	1	49	C	
JUL 12,82	JUL 11,82	900 900	**** ****	1	0.4	1	18134	2	1	66	AC	
JUL 18,82	JUL 17,82	900 900	**** ****	1	2.2	1	18135	2	1	71	CD	
JUL 19,82	JUL 18,82	900 900	1800 1815	1	****	1	18136	2	1	****		
JUL 20,82	JUL 19,82	900 900	**** ****	1	****	*	18137	2	1	****	E	
JUL 28,82	JUL 27,82	900 900	**** ****	1	8.2	1	18138	2	1	99		
JUL 31,82	JUL 30,82	800 900	**** ****	1	4.0	1	18139	2	1	86		
AUG 2,82	AUG 1,82	800 800	**** ****	1	16.8	1	18140	2	1	103		
AUG 5,82	AUG 4,82	800 800	**** ****	1	5.0	1	18141	2	1	90		
AUG 8,82	AUG 7,82	800 1200	**** ****	1	31.0	1	18142	2	1	105		
AUG 9,82	AUG 8,82	1200 800	**** ****	1	6.0	1	18143	2	1	95	C	
AUG 20,82	AUG 19,82	800 800	**** ****	1	8.0	1	18144	2	1	95	C	
AUG 21,82	AUG 20,82	800 800	**** ****	1	1.0	1	18145	2	1	76		
AUG 22,82	AUG 21,82	800 800	**** ****	1	1.8	1	18146	2	1	89	CD	
AUG 25,82	AUG 24,82	800 1445	2230 200	1	19.6	1	18147	2	1	102	C	
AUG 30,82	AUG 29,82	800 800	**** ****	1	****	1	18148	2	1	****	C	
SEP 3,82	SEP 2,82	800 800	**** ****	1	3.0	1	18149	2	1	87	CD	
SEP 15,82	SEP 14,82	800 800	**** ****	1	8.3	1	18150	2	1	92	AC	
SEP 18,82	SEP 17,82	800 800	**** ****	1	8.0	1	18151	2	1	100	C	
SEP 22,82	SEP 21,82	800 800	**** ****	1	3.3	1	18152	2	1	92	TC	
SEP 23,82	SEP 22,82	800 800	**** ****	1	14.4	1	18153	2	1	99	JT	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUC*	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 8,82	MAY 7,82	232.0	20.5	4.50	4.75	0.0516	2.90	0.45
MAY 20,82	MAY 19,82	72.0	*****	*****	3.42	U 0.4658	9.85	1.41
MAY 27,82	MAY 26,82	87.0	*****	*****	3.63	0.2900	9.60	2.03
MAY 28,82	MAY 27,82	3014.0	39.5	3.99	4.15	0.1062	3.55	0.39
MAY 31,82	MAY 30,82	61.0	*****	*****	3.85	0.1944	9.30	1.78
JUN 1,82	MAY 31,82	745.0	26.5	4.15	4.35	0.0740	2.45	0.26
JUN 2,82	JUN 1,82	769.0	21.5	4.30	4.49	0.0608	2.00	0.26
JUN 6,82	JUN 5,82	1293.0	12.0	4.50	4.72	0.0386	1.00	0.17
JUN 8,82	JUN 7,82	82.0	*****	*****	3.40	0.4510	25.50	U 3.29
JUN 13,82	JUN 12,82	209.0	66.5	3.96	3.83	0.1442	6.15	1.74
JUN 16,82	JUN 15,82	1921.0	40.5	4.12	4.11	0.0886	4.75	0.49
JUN 20,82	JUN 19,82	823.0	49.9	3.93	3.94	0.1234	4.65	0.55
JUN 21,82	JUN 20,82	778.0	18.0	4.53	4.64	0.0372	1.45	0.23
JUN 22,82	JUN 21,82	91.0	*****	*****	4.09	0.1024	4.45	0.94
JUN 26,82	JUN 25,82	155.0	66.0	*****	4.40	0.0908	U 11.50	U 2.50
JUN 27,82	JUN 26,82	U 12.0	*****	*****	*****	*****	*****	*****
JUN 29,82	JUN 28,82	840.0	60.5	3.86	3.69	0.1570	6.45	0.50
JUL 4,82	JUL 3,82	118.0	104.0	*****	3.66	0.2480	10.30	1.75
JUL 5,82	JUL 4,82	324.0	41.2	4.02	4.05	0.1108	4.35	0.43
JUL 11,82	JUL 10,82	U 32.0	*****	*****	3.28	0.5600	*****	*****
JUL 12,82	JUL 11,82	17.0	*****	*****	4.09	0.1232	*****	*****
JUL 18,82	JUL 17,82	101.0	*****	*****	4.49	0.0726	U 7.45	U 1.35
JUL 19,82	JUL 18,82	62.0	*****	*****	4.68	0.0450	4.15	0.44
JUL 20,82	JUL 19,82	*****	*****	*****	*****	*****	*****	*****
JUL 28,82	JUL 27,82	525.0	35.9	4.08	4.11	0.0858	3.35	0.67
JUL 31,82	JUL 30,82	222.0	59.0	3.90	3.96	0.1274	8.10	1.24
AUG 2,82	AUG 1,82	1118.0	25.1	4.22	4.37	0.0586	2.85	0.44
AUG 5,82	AUG 4,82	290.0	19.8	4.35	4.46	0.0544	2.55	0.23
AUG 8,82	AUG 7,82	2105.0	64.5	3.89	3.81	0.1682	6.45	0.58
AUG 9,82	AUG 8,82	369.0	26.0	4.21	4.29	0.0682	3.10	0.23
AUG 20,82	AUG 19,82	488.0	*****	4.05	3.99	0.1458	7.30	0.72
AUG 21,82	AUG 20,82	49.0	*****	*****	6.74	0.0336	0.75	0.16
AUG 22,82	AUG 21,82	103.0	*****	*****	4.06	0.1272	5.55	0.83
AUG 25,82	AUG 24,82	1290.0	33.6	4.18	4.11	0.1076	3.10	0.36
AUG 30,82	AUG 29,82	355.0	30.6	4.25	4.23	0.0822	3.40	0.39
SEP 3,82	SEP 2,82	169.0	25.0	*****	4.88	0.0612	U 4.45	0.76
SEP 15,82	SEP 14,82	493.0	25.5	*****	4.29	0.0848	3.15	0.48
SEP 18,82	SEP 17,82	517.0	26.0	4.30	4.26	0.0792	2.70	0.60
SEP 22,82	SEP 21,82	196.0	52.0	3.85	3.80	0.1428	4.20	1.27
SEP 23,82	SEP 22,82	917.0	37.2	4.19	3.92	0.1158	2.90	0.50

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 8,82	MAY 7,82	0.44	0.11	0.105	0.045	0.070	0.550	0.0178
MAY 20,82	MAY 19,82	*****	0.46	*****	*****	*****	*****	0.3802
MAY 27,82	MAY 26,82	*****	0.68	*****	*****	*****	*****	0.2344
MAY 28,82	MAY 27,82	0.05	0.04	0.005	<T 0.015	<T 0.010	0.184	0.0708
MAY 31,82	MAY 30,82	*****	0.35	*****	*****	*****	*****	0.1413
JUN 1,82	MAY 31,82	0.06	0.02	0.010	<T 0.015	<T 0.010	0.174	0.0447
JUN 2,82	JUN 1,82	0.04	0.03	0.005	<T 0.015	<T 0.010	0.286	0.0324
JUN 6,82	JUN 5,82	0.07	0.01	0.010	<T 0.005	<T 0.010	0.186	0.0191
JUN 8,82	JUN 7,82	*****	0.75	*****	*****	*****	2.950	0.3981
JUN 13,82	JUN 12,82	1.42	0.42	0.205	0.145	0.070	1.070	0.1479
JUN 16,82	JUN 15,82	0.37	0.11	0.080	0.160	0.045	0.700	0.0776
JUN 20,82	JUN 19,82	0.03	0.10	0.020	<T 0.015	0.015	0.460	0.1148
JUN 21,82	JUN 20,82	0.13	0.04	0.025	<T 0.015	0.030	0.294	0.0229
JUN 22,82	JUN 21,82	*****	0.25	*****	*****	*****	*****	0.0813
JUN 26,82	JUN 25,82	U 2.45	0.60	U 0.625	0.340	U 0.125	U 2.500	0.0398
JUN 27,82	JUN 26,82	*****	*****	*****	*****	*****	*****	*****
JUN 29,82	JUN 28,82	0.18	0.10	0.030	0.080	0.045	*****	0.2042
JUL 4,82	JUL 3,82	*****	0.53	*****	*****	*****	1.080	0.2188
JUL 5,82	JUL 4,82	0.15	0.15	0.035	0.025	0.045	0.382	0.0891
JUL 11,82	JUL 10,82	*****	*****	*****	*****	*****	*****	0.5248
JUL 12,82	JUL 11,82	*****	*****	*****	*****	*****	*****	0.0813
JUL 18,82	JUL 17,82	*****	U 1.02	*****	*****	*****	1.100	0.0324
JUL 19,82	JUL 18,82	*****	0.32	*****	*****	*****	*****	0.0209
JUL 20,82	JUL 19,82	*****	*****	*****	*****	*****	*****	*****
JUL 28,82	JUL 27,82	0.43	0.07	0.070	0.020	<T 0.010	0.268	0.0776
JUL 31,82	JUL 30,82	1.30	0.27	0.290	0.125	0.035	1.020	0.1096
AUG 2,82	AUG 1,82	0.39	0.08	0.040	0.045	0.015	0.480	0.0427
AUG 5,82	AUG 4,82	0.26	0.24	0.030	0.075	0.100	0.384	0.0347
AUG 8,82	AUG 7,82	0.11	0.15	0.020	0.125	0.030	0.440	0.1549
AUG 9,82	AUG 8,82	0.11	0.11	0.015	0.060	0.025	0.352	0.0513
AUG 20,82	AUG 19,82	*****	0.32	*****	*****	*****	1.090	0.1023
AUG 21,82	AUG 20,82	*****	0.23	*****	*****	*****	*****	0.0002
AUG 22,82	AUG 21,82	0.40	0.24	0.130	0.060	0.050	0.840	0.0871
AUG 25,82	AUG 24,82	0.07	0.08	0.020	<T 0.015	<T 0.010	0.382	0.0776
AUG 30,82	AUG 29,82	0.43	0.41	0.105	0.185	0.240	0.190	0.0589
SEP 3,82	SEP 2,82	0.84	U 0.49	0.175	U 0.230	U 0.235	U 1.070	0.0132
SEP 15,82	SEP 14,82	0.33	0.10	0.035	0.035	0.015	0.286	0.0513
SEP 18,82	SEP 17,82	0.53	0.15	0.110	0.060	0.050	0.118	0.0550
SEP 22,82	SEP 21,82	0.39	0.22	0.050	0.125	0.100	0.580	0.1585
SEP 23,82	SEP 22,82	0.04	0.07	<W 0.005	<W 0.005	<W 0.005	0.208	0.1202

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
											04-ON HYDRO	
SEP 24,82	SEP 23,82	800 800	**** ****	1	2.9	1	18154	2	1	82	C TC	
SEP 25,82	SEP 24,82	800 800	**** ****	1	20.0	1	18155	2	1	96	C JT	
SEP 27,82	SEP 26,82	800 800	**** ****	1	24.6	1	18156	2	1	103	C M	
SEP 28,82	SEP 27,82	800 800	**** ****	1	8.6	1	18157	2	1	86	AD	
OCT 8,82	OCT 7,82	800 800	**** ****	1	6.7	1	18158	2	1	94	A	
OCT 11,82	OCT 10,82	800 800	**** ****	1	3.8	1	18159	2	1	91	T	
OCT 15,82	OCT 14,82	800 800	1230 1600	1	1.8	1	18160	2	1	72	C	
OCT 17,82	OCT 16,82	800 800	**** ****	3	17.5	1	18161	2	1	78	AD HM	
NOV 1,82	OCT 31,82	800 800	**** ****	1	4.7	1	18162	2	1	96		
NOV 2,82	NOV 1,82	800 800	**** ****	1	25.0	1	18163	2	1	122	N	
NOV 3,82	NOV 2,82	800 800	**** ****	1	17.1	1	18164	2	1	104		
NOV 4,82	NOV 3,82	800 800	**** ****	1	4.0	1	18165	2	1	87		
NOV 11,82	NOV 10,82	800 800	**** ****	1	11.1	2	18166	2	1	98		
NOV 12,82	NOV 11,82	800 800	**** ****	1	11.4	2	18167	2	1	95		
NOV 13,82	NOV 12,82	800 800	**** ****	3	13.1	2	18168	2	1	87		
NOV 20,82	NOV 19,82	800 900	**** ****	1	11.5	2	18169	2	1	105	C	
NOV 21,82	NOV 20,82	900 1000	**** ****	1	20.1	2	18170	2	1	107		
NOV 22,82	NOV 21,82	1000 800	**** ****	1	0.7	2	18171	2	1	91	CD	
NOV 24,82	NOV 23,82	800 800	**** ****	3	14.1	2	18172	2	1	105		
NOV 27,82	NOV 26,82	800 800	900 1200	2	5.3	2	18173	2	1	7	N	
NOV 29,82	NOV 28,82	800 800	**** ****	1	13.6	2	18174	2	1	100		
DEC 3,82	DEC 2,82	800 800	**** ****	1	2.9	2	18175	2	1	114	D	
DEC 4,82	DEC 3,82	800 800	2300 400	1	****	*	18176	2	1	****		
DEC 5,82	DEC 4,82	800 800	**** ****	1	2.6	2	18177	2	1	117		
DEC 6,82	DEC 5,82	800 800	**** ****	2	****	*	18178	2	1	****		
DEC 9,82	DEC 8,82	800 800	**** ****	2	4.8	2	18179	2	1	****	EIK	
DEC 16,82	DEC 15,82	800 800	**** ****	1	19.6	2	18180	2	1	103	C	
DEC 19,82	DEC 18,82	900 800	**** ****	1	4.2	2	18181	2	1	102	C	
DEC 20,82	DEC 19,82	800 800	**** ****	3	16.8	2	18182	2	1	76	C	
DEC 24,82	DEC 23,82	800 900	**** ****	1	6.4	2	18183	2	1	119	C	
DEC 25,82	DEC 24,82	900 800	**** ****	1	15.2	2	18184	2	1	112		
DEC 28,82	DEC 27,82	800 900	**** ****	1	9.1	2	18185	2	1	122	N	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 24,82	SEP 23,82	153.0	56.0	*****	3.75	0.1586	5.80	0.78
SEP 25,82	SEP 24,82	1238.0	56.0	4.58	3.77	0.1522	5.00	0.91
SEP 27,82	SEP 26,82	1627.0	20.5	4.05	4.23	0.0674	1.50	0.21
SEP 28,82	SEP 27,82	477.0	24.9	4.35	4.18	0.0796	2.50	0.32
OCT 8,82	OCT 7,82	405.0	42.9	4.10	4.02	0.1268	5.70	0.43
OCT 11,82	OCT 10,82	224.0	85.0	3.78	3.65	0.2160	8.40	1.39
OCT 15,82	OCT 14,82	84.0	*****	*****	6.71	0.0312	3.50	0.79
OCT 17,82	OCT 16,82	882.0	3.0	5.93	6.05	0.0266	0.25	0.02
NOV 1,82	NOV 31,82	292.0	39.4	4.27	4.09	0.1088	4.10	0.69
NOV 2,82	NOV 1,82	1958.0	15.5	4.60	4.45	0.0532	1.50	0.19
NOV 3,82	NOV 2,82	1148.0	18.2	*****	4.39	0.0636	1.60	0.26
NOV 4,82	NOV 3,82	225.0	*****	*****	3.96	0.1202	2.80	1.00
NOV 11,82	NOV 10,82	704.0	47.0	4.00	3.90	0.1354	3.85	0.94
NOV 12,82	NOV 11,82	697.0	23.0	4.33	4.24	0.0806	2.30	0.27
NOV 13,82	NOV 12,82	736.0	20.0	4.36	4.33	0.0716	2.10	0.23
NOV 20,82	NOV 19,82	777.0	26.0	4.21	4.15	0.0864	2.30	0.30
NOV 21,82	NOV 20,82	1387.0	24.0	4.30	4.19	0.0788	2.30	0.31
NOV 22,82	NOV 21,82	41.0	*****	*****	4.64	0.0554	*****	*****
NOV 24,82	NOV 23,82	954.0	17.5	4.45	4.42	0.0620	1.60	0.22
NOV 27,82	NOV 26,82	U 25.0	*****	*****	4.06	0.1050	4.55	0.42
NOV 29,82	NOV 28,82	878.0	31.0	4.19	4.19	0.0908	2.45	0.40
DEC 3,82	DEC 2,82	212.0	*****	4.23	4.15	0.0812	3.10	0.26
DEC 4,82	DEC 3,82	564.0	20.5	4.39	4.36	0.0640	2.10	0.31
DEC 5,82	DEC 4,82	196.0	*****	4.14	4.08	0.1020	2.90	0.34
DEC 6,82	DEC 5,82	785.0	14.5	4.56	4.51	0.0568	1.35	0.11
DEC 9,82	DEC 8,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	1296.0	13.5	4.44	4.44	0.0582	1.40	0.29
DEC 19,82	DEC 18,82	277.0	101.0	*****	3.66	0.2608	7.00	2.18
DEC 20,82	DEC 19,82	826.0	18.2	*****	4.44	0.0612	1.40	0.30
DEC 24,82	DEC 23,82	489.0	56.0	3.92	3.92	0.1484	5.00	0.86
DEC 25,82	DEC 24,82	1096.0	19.4	*****	4.47	0.0540	1.80	0.16
DEC 28,82	DEC 27,82	713.0	21.8	4.37	4.43	0.0646	2.00	0.23

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHM.

#01

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 24,82	SEP 23,82	0.35	0.14	0.050	0.050	0.030	0.600	0.1778
SEP 25,82	SEP 24,82	0.16	0.16	0.025	0.060	0.060	0.840	0.1698
SEP 27,82	SEP 26,82	0.02	0.07	0.005	0.015	0.015	0.224	0.0589
SEP 28,82	SEP 27,82	0.06	0.10	0.010	0.050	0.060	0.470	0.0661
OCT 8,82	OCT 7,82	0.53	0.27	0.100	0.130	0.125	0.780	0.0955
OCT 11,82	OCT 10,82	0.65	0.39	0.100	0.185	0.180	1.240	0.2239
OCT 15,82	OCT 14,82	U 1.90	0.27	0.340	0.135	0.050	*****	U 0.0002
OCT 17,82	OCT 16,82	0.23	0.03	0.025	0.020	<W 0.005	0.138	0.0009
NOV 1,82	OCT 31,82	0.33	0.25	0.050	0.050	0.110	0.640	0.0813
NOV 2,82	NOV 1,82	0.06	0.07	0.020	0.015	0.060	0.160	0.0355
NOV 3,82	NOV 2,82	0.07	0.07	0.015	0.030	0.050	0.240	0.0407
NOV 4,82	NOV 3,82	0.22	0.15	0.035	0.055	0.025	0.132	0.1096
NOV 11,82	NOV 10,82	0.99	0.38	0.080	0.055	0.205	0.346	0.1259
NOV 12,82	NOV 11,82	0.10	0.10	0.015	0.030	0.060	0.280	0.0575
NOV 13,82	NOV 12,82	0.13	0.27	0.035	0.035	0.200	0.252	0.0468
NOV 20,82	NOV 19,82	0.12	0.11	0.010	0.030	0.050	0.088	0.0708
NOV 21,82	NOV 20,82	0.09	0.04	0.005	0.010	0.030	0.198	0.0646
NOV 22,82	NOV 21,82	*****	*****	*****	*****	*****	*****	0.0229
NOV 24,82	NOV 23,82	0.04	0.06	<W 0.005	<T 0.005	0.010	0.164	0.0380
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	0.0871
NOV 29,82	NOV 28,82	0.04	0.11	0.005	0.020	0.025	0.208	0.0646
DEC 3,82	DEC 2,82	0.32	0.60	0.095	0.045	0.385	0.156	0.0708
DEC 4,82	DEC 3,82	0.15	0.22	0.045	U 0.180	U 0.150	0.242	0.0437
DEC 5,82	DEC 4,82	0.24	0.32	0.045	0.035	0.175	0.200	0.0832
DEC 6,82	DEC 5,82	0.02	0.12	0.010	U 0.030	0.040	0.088	0.0309
DEC 9,82	DEC 8,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	0.09	0.06	0.020	0.050	0.020	0.134	0.0363
DEC 19,82	DEC 18,82	0.42	0.66	0.065	0.290	0.240	0.940	0.2188
DEC 20,82	DEC 19,82	0.15	0.05	0.025	0.030	0.025	0.164	0.0363
DEC 24,82	DEC 23,82	0.31	0.49	0.065	0.105	0.325	0.510	0.1202
DEC 25,82	DEC 24,82	0.10	0.37	0.040	0.040	0.230	0.160	0.0339
DEC 28,82	DEC 27,82	0.10	0.15	0.020	0.035	0.110	0.160	0.0372

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/SES

#03

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS		
											FIELD	OFFICE	
04-ON HYDRO													
JAN 3+82	JAN 2,82	800 800	**** ****	3	1.1	2	18405	2	1	42	C	N	
JAN 4,82	JAN 3,82	800 800	1300 800	1	8.3	2	18406	2	1	100	D		
JAN 5+82	JAN 4,82	800 800	**** ****	2	7.9	2	18407	2	1	70	C		
JAN 6+82	JAN 5,82	800 800	**** ****	2	****	2	18408	2	1	****	E		
JAN 7+82	JAN 6,82	800 800	**** ****	2	****	2	18409	2	1	****	CD		
JAN 8+82	JAN 7,82	800 800	**** ****	2	1.3	2	18410	2	1	56	CD		
JAN 10+82	JAN 9,82	800 800	800 800	2	2.4	2	18411	2	1	62	CD		
JAN 11+82	JAN 10,82	800 800	800 800	2	3.7	2	18412	2	1	47	CD	C	
JAN 12+82	JAN 11,82	800 800	800 1900	2	16.2	2	18413	2	1	57	CD	NHCM	
JAN 13+82	JAN 12,82	800 800	**** ****	2	11.3	2	18414	2	1	55	D	JCM	
JAN 14+82	JAN 13,82	800 800	**** ****	2	3.9	2	18415	2	1	37	H		
JAN 15+82	JAN 14,82	800 800	**** ****	2	2.5	2	18416	2	1	70	C		
JAN 17+82	JAN 16,82	800 800	**** ****	2	1.3	2	18417	2	1	50	CD		
JAN 18+82	JAN 17,82	800 800	**** ****	2	10.9	2	18418	2	1	59	CD	CM	
JAN 20+82	JAN 19,82	800 800	**** ****	2	****	2	18419	2	1	****	C		
JAN 21+82	JAN 20,82	800 800	**** ****	2	2.3	2	18420	2	1	90	CD		
JAN 24+82	JAN 23,82	800 800	**** ****	2	1.5	2	18421	2	1	50	C	H	
JAN 25+82	JAN 24,82	800 800	800 1900	2	1.7	2	18422	2	1	43	CD		
JAN 26+82	JAN 25,82	800 800	**** ****	2	4.3	2	18423	2	1	44	CD	N	
JAN 27+82	JAN 26,82	800 800	**** ****	2	****	2	18424	2	1	****	C	NHCM	
JAN 28+82	JAN 27,82	800 800	**** ****	2	****	2	18425	2	1	****	D		
JAN 29+82	JAN 28,82	800 800	**** ****	2	1.3	2	18426	2	1	48	C	N	
JAN 30+82	JAN 29,82	800 700	**** ****	2	0.9	2	18427	2	1	56	CC		
JAN 31+82	JAN 30,82	700 730	**** ****	2	8.9	2	18428	2	1	94	C		
FEB 1+82	FEB 31,82	730 1100	**** ****	3	2.0	2	18429	2	1	111			
FEB 2+82	FEB 1,82	1100 730	**** ****	3	17.7	2	18430	2	1	46	C	N	
FEB 3+82	FEB 2,82	730 700	**** ****	2	****	2	18431	2	1	****	E		
FEB 4+82	FEB 3,82	700 1000	**** ****	2	****	2	18432	2	1	****	E		
FEB 5+82	FEB 4,82	1000 730	**** ****	2	14.7	2	18433	2	1	41	C		
FEB 6+82	FEB 5,82	730 730	**** ****	2	****	2	18434	2	1	****	E		
FEB 9+82	FEB 8,82	8.82	**** ****	2	6.7	2	18435	2	1	94	C		
FEB 11+82	FEB 10,82	800 800	**** ****	2	****	2	18436	2	1	****	E		
FEB 14+82	FEB 13,82	800 800	**** ****	2	1.3	2	18437	2	1	49	D	N	
FEB 19+82	FEB 18,82	800 800	**** ****	2	2.3	2	18438	2	1	69	D		
FEB 21+82	FEB 20,82	800 800	**** ****	3	4.3	2	18439	2	1	115	C		
FEB 23+82	FEB 22,82	800 800	**** ****	2	3.3	2	18440	2	1	83	C		
FEB 26+82	FEB 25,82	800 800	**** ****	2	0.4	2	18441	2	1	54	CD		
MAR 1+82	FEB 28,82	800 800	**** ****	2	****	2	18442	2	1	****	E		
MAR 2+82	MAR 1,82	800 800	800 1400	2	1.7	2	18443	2	1	****	C		
							18444	2	1	72	C	H	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/SES

#03

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUC*	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 3,82	JAN 2,82	U 77.0	*****	*****	4.07	*****	8.50	U 2.05
JAN 4,82	JAN 3,82	1374.0	28.3	*****	4.23	0.1012	1.85	0.42
JAN 5,82	JAN 4,82	917.0	13.7	*****	U 6.32	U 0.0404	2.00	0.39
JAN 6,82	JAN 5,82	11.0	*****	*****	*****	*****	*****	*****
JAN 7,82	JAN 6,82	36.0	*****	*****	4.64	*****	4.20	1.62
JAN 8,82	JAN 7,82	120.0	*****	*****	U 7.31	*****	1.20	0.63
JAN 9,82	JAN 8,82	247.0	47.5	*****	U 7.32	U 0.0336	2.05	1.17
JAN 10,82	JAN 9,82	U 287.0	5.8	*****	U 6.10	U 0.0396	0.60	0.05
JAN 11,82	JAN 10,82	1530.0	19.0	U 6.88	U 6.91	U 0.0380	0.85	0.13
JAN 12,82	JAN 11,82	1025.0	4.4	U 5.55	U 5.53	U 0.0328	0.30	0.01
JAN 13,82	JAN 12,82	U 240.0	26.0	*****	*****	0.1108	0.70	0.93
JAN 14,82	JAN 13,82	288.0	25.6	*****	4.07	0.0968	0.70	0.77
JAN 15,82	JAN 14,82	108.0	*****	*****	4.04	*****	1.40	1.64
JAN 17,82	JAN 16,82	1070.0	31.0	U 6.95	U 7.00	U 0.0410	1.55	0.72
JAN 18,82	JAN 17,82	17.0	*****	*****	U 6.98	*****	*****	*****
JAN 20,82	JAN 19,82	341.0	24.0	*****	4.26	0.0852	1.20	0.64
JAN 21,82	JAN 20,82	124.0	*****	*****	U 5.77	*****	0.75	0.31
JAN 24,82	JAN 23,82	U 122.0	*****	*****	U 6.53	*****	1.65	U 1.26
JAN 25,82	JAN 24,82	U 313.0	12.8	*****	U 6.69	U 0.0386	0.85	0.17
JAN 26,82	JAN 25,82	100.0	*****	*****	U 6.16	*****	0.85	0.23
JAN 27,82	JAN 26,82	30.0	*****	*****	4.65	*****	*****	*****
JAN 28,82	JAN 27,82	U 103.0	*****	*****	U 6.92	*****	2.30	1.47
JAN 29,82	JAN 28,82	83.0	*****	*****	4.05	*****	4.55	1.39
JAN 30,82	JAN 29,82	1380.0	14.3	4.56	4.47	0.0718	0.35	0.42
JAN 31,82	JAN 30,82	367.0	21.6	4.37	4.27	0.0824	1.30	0.39
FEB 1,82	JAN 31,82	U 1337.0	10.6	4.79	4.69	0.0566	1.10	0.14
FEB 2,82	FER 1,82	4.0	*****	*****	*****	*****	*****	*****
FEB 3,82	FER 2,82	1.0	*****	*****	*****	*****	*****	*****
FEB 4,82	FER 3,82	U 989.0	14.8	4.56	4.45	0.0686	0.80	0.33
FEB 5,82	FER 4,82	1.0	*****	*****	*****	*****	*****	*****
FEB 6,82	FER 5,82	1034.0	30.7	4.21	4.16	0.1070	0.80	0.80
FEB 9,82	FER 8,82	331.0	30.0	*****	4.18	0.1004	0.60	0.93
FEB 11,82	FER 10,82	U 105.0	*****	*****	4.50	*****	0.75	0.51
FEB 14,82	FER 13,82	263.0	72.0	*****	3.75	0.2034	1.05	2.11
FEB 19,82	FER 18,82	816.0	38.6	4.12	4.15	0.1128	3.45	0.82
FEB 21,82	FER 20,82	450.0	122.0	3.57	3.58	0.3132	11.20	2.26
FEB 23,82	FER 22,82	36.0	*****	*****	4.24	*****	3.65	0.58
FEB 26,82	FER 25,82	9.0	*****	*****	*****	*****	*****	*****
MAR 1,82	FER 28,82	87.0	*****	*****	U 6.29	*****	2.20	1.35
MAR 2,82	MAR 1,82	202.0	42.5	*****	4.61	*****	6.00	1.66

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/SES

#03

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REMOVAL DATE	EXPOSURE DATE	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM	FREE H+
		MG/L	MG/L	MG/L	MG/L	MG/L	AS N	LAB MG/L
JAN 3,82	JAN 2,82	*****	U 1.51	*****	*****	*****	*****	0.0851
JAN 4,82	JAN 3,82	0.05	0.16	0.005	0.030	0.030	0.236	0.0589
JAN 5,82	JAN 4,82	U 1.21	0.24	U 0.265	0.070	0.080	0.246	U 0.0005
JAN 6,82	JAN 5,82	*****	*****	*****	*****	*****	*****	*****
JAN 7,82	JAN 6,82	*****	0.53	*****	*****	*****	*****	*****
JAN 8,82	JAN 7,82	*****	0.44	*****	*****	*****	*****	0.0229
JAN 9,82	JAN 8,82	U 4.20	U 1.75	U 1.100	0.200	U 0.850	0.198	U 0.0000
JAN 10,82	JAN 9,82	0.38	0.04	0.095	0.030	0.030	0.178	U 0.0008
JAN 11,82	JAN 10,82	U 1.98	0.99	U 0.545	0.150	U 0.510	0.072	U 0.0001
JAN 12,82	JAN 11,82	0.09	0.41	0.030	0.030	0.230	0.076	U 0.0030
JAN 13,82	JAN 12,82	0.33	0.50	0.030	0.060	0.120	0.038	*****
JAN 14,82	JAN 13,82	0.06	0.32	0.015	0.010	0.050	0.148	0.0851
JAN 15,82	JAN 14,82	*****	1.08	*****	*****	*****	0.570	0.0912
JAN 17,82	JAN 16,82	U 3.20	U 1.24	U 0.875	0.220	0.480	0.154	U 0.0001
JAN 18,82	JAN 17,82	*****	*****	*****	*****	*****	*****	U 0.0001
JAN 20,82	JAN 19,82	0.42	0.32	0.030	0.040	0.100	0.082	0.0550
JAN 21,82	JAN 20,82	0.58	1.06	0.175	0.030	U 0.700	0.134	U 0.0017
JAN 24,82	JAN 23,82	*****	U 1.59	*****	*****	*****	0.160	U 0.0003
JAN 25,82	JAN 24,82	U 1.29	0.21	U 0.440	0.050	0.070	0.172	U 0.0002
JAN 26,82	JAN 25,82	*****	0.22	*****	*****	*****	0.386	U 0.0007
JAN 27,82	JAN 26,82	*****	*****	*****	*****	*****	*****	0.0224
JAN 28,82	JAN 27,82	*****	U 1.52	*****	*****	*****	0.294	U 0.0001
JAN 29,82	JAN 28,82	*****	0.45	*****	*****	*****	1.090	0.0891
JAN 30,82	JAN 29,82	0.03	0.20	<T 0.005	<T 0.005	0.055	0.042	0.0339
JAN 31,82	JAN 30,82	0.02	0.11	<T 0.005	0.015	0.030	0.130	0.0537
FEB 1,82	JAN 31,82	0.19	0.08	<T 0.005	0.010	0.030	0.078	0.0204
FEB 2,82	FER 1,82	*****	*****	*****	*****	*****	*****	*****
FEB 3,82	FER 2,82	*****	*****	*****	*****	*****	*****	*****
FEB 4,82	FER 3,82	0.02	0.14	<T 0.005	0.010	0.015	0.096	0.0355
FEB 5,82	FER 4,82	*****	*****	*****	*****	*****	*****	*****
FEB 6,82	FER 5,82	0.06	0.34	0.015	0.015	0.065	0.060	0.0692
FEB 9,82	FER 8,82	0.04	0.19	0.005	0.025	0.145	0.098	0.0661
FEB 11,82	FER 10,82	0.26	0.58	0.070	0.020	0.200	0.206	0.0316
FEB 14,82	FER 13,82	0.21	0.74	0.040	0.045	0.225	0.200	0.1778
FEB 19,82	FER 18,82	0.66	0.46	0.180	0.070	0.235	0.312	0.0708
FEB 21,82	FER 20,82	0.35	0.45	0.020	0.060	0.105	2.020	0.2630
FEB 23,82	FER 22,82	*****	0.30	*****	*****	*****	*****	0.0575
FEB 26,82	FER 25,82	*****	*****	*****	*****	*****	*****	*****
MAR 1,82	FER 28,82	*****	0.59	*****	*****	*****	0.640	U 0.0005
MAR 2,82	MAR 1,82	U 1.33	0.58	0.240	0.750	0.240	U 2.150	0.0245

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/SES

#03

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER
MAR 5,82	MAR 4,82	800 800	**** ****	3	14.3	2	18445	2	1	18	C	N
MAR 7,82	MAR 6,82	800 800	**** ****	2	1.3	2	18446	2	1	77	C	
MAR 8,82	MAR 7,82	800 800	**** ****	2	****	2	18447	2	1	****	E	
MAR 9,82	MAR 8,82	800 800	**** ****	2	5.9	2	18448	2	1	80	C	
MAR 10,82	MAR 9,82	800 800	**** ****	3	****	2	18449	2	1	****	C	
MAR 11,82	MAR 10,82	800 800	**** ****	3	5.3	2	18450	2	1	52	C	
MAR 12,82	MAR 11,82	800 800	**** ****	1	1.1	2	18451	2	1	87	C	
MAR 15,82	MAR 14,82	800 800	**** ****	1	5.9	2	18452	2	1	151		N
MAR 17,82	MAR 16,82	800 800	**** ****	1	7.1	2	18453	2	1	114	CD	
MAR 19,82	MAR 18,82	800 800	**** ****	1	****	2	18454	2	1	****	C	
MAR 21,82	MAR 20,82	800 800	**** ****	1	0.9	2	18455	2	1	199	C	N
MAR 22,82	MAR 21,82	800 800	800 1400	3	1.3	2	18456	2	1	76	C	
MAR 26,82	MAR 25,82	800 800	**** ****	2	10.3	2	18457	2	1	83	C	HM
MAR 27,82	MAR 26,82	800 800	**** ****	2	1.3	2	18458	2	1	27	CD	N
MAR 31,82	MAR 30,82	800 800	**** ****	1	17.3	2	18459	2	1	86	C	
APR 1,82	MAR 31,82	800 800	**** ****	1	1.3	2	18460	2	1	175	C	N
APR 3,82	APR 2,82	800 800	**** ****	1	8.3	2	18461	2	1	103		
APR 4,82	APR 3,82	800 800	**** ****	2	8.5	2	18462	2	1	36	CD	NCM
APR 5,82	APR 4,82	800 800	**** ****	1	5.3	2	18463	2	1	35	CD	NCM
APR 6,82	APR 5,82	800 800	**** ****	2	3.7	2	18464	2	1	23	C	N
APR 11,82	APR 10,82	800 800	**** ****	2	3.5	2	18465	2	1	81		
APR 12,82	APR 11,82	800 800	**** ****	3	****	2	18466	2	1	****	CD	
APR 13,82	APR 12,82	800 800	**** ****	1	0.9	2	18467	2	1	388	CD	N
APR 14,82	APR 13,82	800 800	**** ****	1	4.1	2	18468	2	1	125	CD	NJ
APR 17,82	APR 16,82	800 800	**** ****	1	16.5	2	18469	2	1	98		
APR 18,82	APR 17,82	800 800	**** ****	1	0.9	2	18470	2	1	48	C	N
APR 20,82	APR 19,82	800 800	**** ****	1	9.5	2	18471	2	1	108	AC	J
APR 22,82	APR 21,82	800 800	**** ****	1	3.7	2	18472	2	1	148	C	NJ
APR 27,82	APR 26,82	800 800	**** ****	1	4.9	2	18473	2	1	45	C	NJ

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/SES

#03

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAR 5.82	MAR 4.82	U 443.0	30.0	4.20	4.24	0.1030	2.40	0.54
MAR 7.82	MAR 6.82	165.0	*****	*****	4.03	*****	2.65	1.39
MAR 8.82	MAR 7.82	10.0	*****	*****	*****	*****	*****	*****
MAR 9.82	MAR 8.82	775.0	34.6	4.13	4.14	0.1090	0.90	1.11
MAR 10.82	MAR 9.82	18.0	*****	*****	*****	*****	*****	*****
MAR 11.82	MAR 10.82	452.0	U 74.2	3.79	3.87	0.2078	5.30	1.53
MAR 12.82	MAR 11.82	157.0	*****	*****	4.08	*****	7.00	1.20
MAR 15.82	MAR 14.82	1462.0	52.2	3.98	3.99	0.1518	4.85	0.62
MAR 17.82	MAR 16.82	1338.0	62.2	3.90	3.95	0.1824	4.30	1.34
MAR 19.82	MAR 18.82	35.0	*****	*****	U 2.96	*****	U 53.00	U 14.40
MAR 21.82	MAR 20.82	295.0	U 270.0	*****	U 3.35	0.6696	U 15.40	U 6.10
MAR 22.82	MAR 21.82	163.0	55.9	*****	4.08	0.1192	6.85	1.20
MAR 26.82	MAR 25.82	1411.0	9.6	U 5.04	U 5.26	U 0.0264	1.85	0.35
MAR 27.82	MAR 26.82	U 58.0	*****	*****	U 7.38	0.0210	1.15	0.30
MAR 31.82	MAR 30.82	2458.0	17.4	4.58	4.75	0.0450	2.00	0.31
APR 1.82	MAR 31.82	373.0	27.8	U 6.29	U 6.65	U 0.0316	4.05	0.83
APR 3.82	APR 2.82	1410.0	13.4	4.83	4.92	0.0568	2.10	0.25
APR 4.82	APR 3.82	U 514.0	37.7	U 7.28	U 7.35	U 0.0340	1.70	0.44
APR 5.82	APR 4.82	U 311.0	38.6	*****	U 7.51	U 0.0234	1.35	0.16
APR 6.82	APR 5.82	U 140.0	*****	*****	U 7.03	0.0226	0.85	0.24
APR 11.82	APR 10.82	468.0	36.1	4.17	4.32	0.0818	3.85	1.04
APR 12.82	APR 11.82	72.0	*****	*****	U 6.78	U 0.0300	4.15	0.43
APR 13.82	APR 12.82	573.0	58.2	4.03	4.27	0.1080	8.50	1.63
APR 14.82	APR 13.82	843.0	U 77.0	U 6.51	U 7.58	0.0634	5.65	0.65
APR 17.82	APR 16.82	2661.0	31.8	4.16	4.25	0.0886	4.05	0.55
APR 18.82	APR 17.82	U 72.0	*****	*****	3.92	0.1944	12.25	1.79
APR 20.82	APR 19.82	1697.0	30.5	3.84	4.46	0.0714	3.70	0.74
APR 22.82	APR 21.82	902.0	66.0	U 5.41	3.97	0.1462	7.05	1.11
APR 27.82	APR 26.82	U 369.0	44.8	U 3.89	U 5.89	0.0480	9.80	1.31

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE LAB H+ MG/L
MAR 5,82	MAR 4,82	0.33	0.20	0.075	0.055	0.065	0.302	0.0575
MAR 7,82	MAR 6,82	0.48	0.62	0.090	0.025	0.450	0.610	0.0933
MAR 8,82	MAR 7,82	*****	*****	*****	*****	*****	*****	*****
MAR 9,82	MAR 8,82	0.45	0.51	0.080	0.025	0.200	0.136	0.0724
MAR 10,82	MAR 9,82	*****	*****	*****	*****	*****	*****	*****
MAR 11,82	MAR 10,82	0.49	0.62	0.080	0.080	0.315	0.910	0.1349
MAR 12,82	MAR 11,82	0.80	0.64	0.090	0.300	0.440	1.560	0.0832
MAR 15,82	MAR 14,82	0.33	0.30	0.040	0.030	0.195	0.480	0.1023
MAR 17,82	MAR 16,82	0.52	0.22	0.090	0.035	0.040	0.590	0.1122
MAR 19,82	MAR 18,82	*****	U 5.40	*****	*****	*****	*****	U 1.0965
MAR 21,82	MAR 20,82	U 1.88	U 1.13	0.305	0.165	0.260	U 2.300	U 0.4467
MAR 22,82	MAR 21,82	0.49	0.23	0.100	0.040	0.060	U 1.940	0.0832
MAR 26,82	MAR 25,82	0.31	0.22	0.040	0.045	0.090	0.430	U 0.0055
MAR 27,82	MAR 26,82	*****	0.11	*****	*****	*****	*****	U 0.0000
MAR 31,82	MAR 30,82	0.40	0.19	0.070	0.030	0.125	0.210	0.0178
APR 1,82	MAR 31,82	U 1.52	0.39	0.200	0.110	0.125	U 1.440	U 0.0002
APR 3,82	APR 2,82	0.45	0.06	0.130	0.025	0.045	0.238	0.0120
APR 4,82	APR 3,82	U 4.14	0.15	U 1.000	0.160	0.050	0.062	U 0.0000
APR 5,82	APR 4,82	U 4.73	0.15	U 1.250	0.125	0.055	0.012	U 0.0000
APR 6,82	APR 5,82	U 1.37	0.58	U 0.380	0.110	0.380	0.220	U 0.0001
APR 11,82	APR 10,82	0.74	0.18	0.170	0.020	0.090	0.830	0.0479
APR 12,82	APR 11,82	*****	0.18	*****	*****	*****	*****	U 0.0002
APR 13,82	APR 12,82	U 1.96	0.38	0.265	0.115	0.125	U 1.460	0.0537
APR 14,82	APR 13,82	0.55	U 5.51	0.095	1.350	0.265	U 8.850	U 0.0000
APR 17,82	APR 16,82	0.51	0.20	0.075	0.055	0.075	0.610	0.0562
APR 18,82	APR 17,82	*****	0.82	*****	*****	*****	*****	0.1202
APR 20,82	APR 19,82	0.52	0.16	0.120	0.065	0.060	0.720	0.0347
APR 22,82	APR 21,82	0.39	0.30	0.055	0.070	0.065	1.300	0.1072
APR 27,82	APR 26,82	U 2.51	0.51	U 0.465	0.085	0.210	U 1.990	U 0.0013

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHM #03

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REMOVAL DATE	EXPOSURE DATE	SAMPLING	PRECIP	SAMPLE	GAUGE	GAUGE	SAMPLE	PROJECT	SUBPROJECT	SAMPLER	COMMENTS
		START/END	START/END	TYPE	DEPTH (MM)	TYPE	NUMBER	CODE	CODE	EFFICI- ENCY (%)	FIELD OFFICE
HR.	HR.	HR.	HR.	01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER	02-APIOS	01-MOE 03-SPECIAL 03-AES 04-ON HYDRO				
MAY 8,82	MAY 7,82	800	800	**** ****	1	4.6	1	18474	2	1	98 C
MAY 19,82	MAY 18,82	800	800	**** ****	1	0.4	1	18475	2	1	120 CD
MAY 20,82	MAY 19,82	800	800	**** ****	1	3.2	1	18476	2	1	140 BCD
MAY 23,82	MAY 22,82	800	800	**** ****	1	16.8	1	18477	2	1	95
MAY 24,82	MAY 23,82	800	800	**** ****	1	0.8	1	18478	2	1	48
MAY 27,82	MAY 26,82	800	800	**** ****	1	3.3	1	18479	2	1	19 CD
MAY 28,82	MAY 27,82	800	800	**** ****	1	24.6	1	18480	2	1	116 C
MAY 29,82	MAY 28,82	800	800	**** ****	1	5.2	1	18481	2	1	119 CD
MAY 31,82	MAY 30,82	800	800	**** ****	1	0.8	1	18482	2	1	44 D
JUN 2,82	JUN 1,82	800	800	**** ****	1	7.3	1	18483	2	1	110 C
JUN 5,82	JUN 4,82	800	800	**** ****	1	2.8	1	18484	2	1	144 C
JUN 6,82	JUN 5,82	800	800	**** ****	1	22.6	1	18485	2	1	88 C
JUN 8,82	JUN 7,82	800	800	**** ****	1	2.2	1	18486	2	1	65 C
JUN 14,82	JUN 13,82	800	800	**** ****	1	****	1	18487	2	1	**** E
JUN 16,82	JUN 15,82	800	800	**** ****	1	16.0	1	18488	2	1	148 CD
JUN 19,82	JUN 18,82	800	800	**** ****	1	10.4	1	18490	2	1	103 C
JUN 20,82	JUN 19,82	800	800	**** ****	1	7.0	1	18492	2	1	89 C
JUN 22,82	JUN 21,82	800	800	**** ****	1	4.4	1	18494	2	1	98 C
JUN 26,82	JUN 25,82	800	800	**** ****	1	7.3	1	18495	2	1	99 AC
JUN 29,82	JUN 28,82	800	800	**** ****	1	14.8	1	18496	2	1	100 C
JUL 4,82	JUL 3,82	800	800	**** ****	1	4.4	1	18497	2	1	101 AC
JUL 12,82	JUL 11,82	800	800	**** ****	1	****	1	18498	2	1	****
JUL 18,82	JUL 17,82	800	800	900 1700	1	25.0	1	18499	2	1	119 ACD
JUL 19,82	JUL 18,82	800	800	**** ****	1	14.0	1	18500	2	1	103 CM
JUL 28,82	JUL 27,82	800	800	**** ****	1	30.0	1	18501	2	1	105 C
JUL 31,82	JUL 30,82	800	800	**** ****	1	3.1	1	18502	2	1	94 C
AUG 3,82	AUG 2,82	800	800	**** ****	1	18.0	1	18503	2	1	99 C
AUG 4,82	AUG 3,82	800	800	**** ****	1	4.8	1	18504	2	1	94 C
AUG 8,82	AUG 7,82	800	800	530 800	1	8.0	1	18505	2	1	98 C
AUG 9,82	AUG 8,82	800	800	**** ****	1	3.8	1	18506	2	1	**** ACG
AUG 20,82	AUG 19,82	800	800	**** ****	1	17.0	1	18507	2	1	102 ACD
AUG 21,82	AUG 20,82	800	800	**** ****	1	5.6	1	18508	2	1	94 ACD
AUG 22,82	AUG 21,82	800	800	**** ****	1	5.1	1	18509	2	1	89 C
AUG 25,82	AUG 24,82	800	800	**** ****	1	48.5	1	18510	2	1	110
AUG 30,82	AUG 29,82	800	800	**** ****	1	3.2	1	18511	2	1	78 ACD
SEP 2,82	SEP 1,82	800	800	**** ****	1	8.0	1	18512	2	1	83 B
SEP 3,82	SEP 2,82	800	800	**** ****	1	7.8	1	18513	2	1	78
SEP 4,82	SEP 3,82	800	800	**** ****	1	2.6	1	18514	2	1	87 CM
SEP 15,82	SEP 14,82	800	800	**** ****	1	7.0	1	18515	2	1	100 CD
SEP 16,82	SEP 15,82	800	800	**** ****	1	2.0	1	18516	2	1	81 C

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 8,82	MAY 7,82	290.0	24.8	U 6.89	U 6.91	0.0362	2.70	0.80
MAY 19,82	MAY 18,82	31.0	*****	*****	U 3.93	U 0.2384	15.00	3.00
MAY 20,82	MAY 19,82	289.0	*****	U 6.61	U 7.05	0.0308	4.85	0.97
MAY 23,82	MAY 22,82	1024.0	45.4	3.99	4.12	0.1124	4.75	0.56
MAY 24,82	MAY 23,82	U 25.0	*****	*****	U 3.45	U 0.4842	15.00	3.00
MAY 27,82	MAY 26,82	U 42.0	*****	*****	3.52	0.3640	13.65	3.09
MAY 28,82	MAY 27,82	1831.0	32.3	4.20	4.25	0.0854	3.60	0.40
MAY 29,82	MAY 28,82	398.0	23.8	4.34	4.34	0.0640	2.30	0.24
MAY 31,82	MAY 30,82	U 23.0	*****	*****	4.29	0.0932	*****	*****
JUN 2,82	JUN 1,82	518.0	69.9	3.77	3.75	0.2166	6.50	0.64
JUN 5,82	JUN 4,82	259.0	42.2	4.02	4.02	0.0988	4.15	0.66
JUN 6,82	JUN 5,82	1289.0	7.5	5.02	4.91	0.0298	0.65	0.13
JUN 8,82	JUN 7,82	92.0	*****	*****	3.83	0.1702	9.60	1.06
JUN 14,82	JUN 13,82	3.0	*****	*****	*****	*****	*****	*****
JUN 16,82	JUN 15,82	1523.0	27.5	4.29	4.16	0.0660	3.25	0.43
JUN 19,82	JUN 18,82	688.0	89.0	3.00	3.60	0.2118	7.90	1.74
JUN 20,82	JUN 19,82	403.0	36.3	4.08	4.07	0.0894	3.60	0.44
JUN 22,82	JUN 21,82	279.0	17.0	5.72	6.04	0.0240	3.10	0.56
JUN 26,82	JUN 25,82	465.0	38.7	4.38	4.56	0.0596	6.30	0.62
JUN 29,82	JUN 28,82	950.0	47.5	U 6.59	U 7.43	U 0.0722	6.90	0.39
JUL 4,82	JUL 3,82	285.0	70.6	3.78	3.79	0.1918	9.40	1.10
JUL 12,82	JUL 11,82	138.0	42.5	*****	4.99	0.0542	6.30	0.72
JUL 18,82	JUL 17,82	1911.0	27.5	4.26	4.39	0.0608	3.15	0.37
JUL 19,82	JUL 18,82	931.0	31.5	4.23	U 5.19	0.0526	5.15	0.52
JUL 28,82	JUL 27,82	2021.0	54.5	*****	3.96	0.1346	6.15	0.49
JUL 31,82	JUL 30,82	187.0	83.0	*****	3.75	0.2280	9.60	1.62
AUG 3,82	AUG 2,82	1150.0	12.0	*****	4.93	0.0256	0.65	0.19
AUG 4,82	AUG 3,82	292.0	41.0	*****	4.16	0.0928	4.85	0.81
AUG 8,82	AUG 7,82	507.0	24.3	*****	4.23	0.0590	1.90	0.29
AUG 9,82	AUG 8,82	202.0	68.0	*****	3.78	0.1646	8.35	0.70
AUG 20,82	AUG 19,82	1120.0	27.1	4.53	4.93	0.0492	5.50	0.68
AUG 21,82	AUG 20,82	339.0	4.0	5.56	6.32	0.0214	0.20	0.04
AUG 22,82	AUG 21,82	293.0	39.2	4.08	4.08	0.1042	4.65	0.56
AUG 25,82	AUG 24,82	3436.0	25.2	4.25	4.28	0.0934	2.50	0.27
AUG 30,82	AUG 29,82	161.0	30.7	*****	4.14	0.0762	3.60	0.56
SEP 2,82	SEP 1,82	426.0	23.0	U 6.25	U 6.32	U 0.0686	3.25	0.31
SEP 3,82	SEP 2,82	391.0	17.5	4.51	4.45	0.0528	2.50	0.33
SEP 4,82	SEP 3,82	146.0	5.2	*****	6.35	0.0214	0.35	0.05
SEP 15,82	SEP 14,82	450.0	31.5	4.35	4.32	0.0866	4.70	0.68
SEP 16,82	SEP 15,82	105.0	*****	*****	5.32	0.0552	6.00	0.95

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE LAB H+ MG/L
MAY 8,82	MAY 7,82	U 1.21	0.19	U 0.335	0.070	0.080	U 1.400	U 0.0001
MAY 19,82	MAY 18,82	*****	U 1.60	*****	*****	*****	*****	U 0.1175
MAY 20,82	MAY 19,82	1.89	0.24	0.585	0.310	0.070	1.350	U 0.0001
MAY 23,82	MAY 22,82	0.38	0.08	0.075	0.055	0.030	0.430	0.0759
MAY 24,82	MAY 23,82	*****	U 1.56	*****	*****	*****	*****	U 0.3548
MAY 27,82	MAY 26,82	*****	0.77	*****	*****	*****	*****	0.3020
MAY 28,82	MAY 27,82	U 0.52	<W 0.01	U 0.075	U 0.150	<T 0.010	0.254	0.0562
MAY 29,82	MAY 28,82	0.08	<W 0.01	0.010	<T 0.005	<T 0.010	0.246	0.0457
MAY 31,82	MAY 30,82	*****	*****	*****	*****	*****	*****	0.0513
JUN 2,82	JUN 1,82	0.14	0.10	0.015	<T 0.010	0.025	0.354	0.1778
JUN 5,82	JUN 4,82	0.42	0.16	0.100	0.095	0.075	0.430	0.0955
JUN 6,82	JUN 5,82	0.07	<W 0.01	0.010	<W 0.005	<T 0.010	0.152	0.0123
JUN 8,82	JUN 7,82	0.88	0.35	0.120	0.175	0.265	*****	0.1479
JUN 14,82	JUN 13,82	*****	*****	*****	*****	*****	*****	*****
JUN 16,82	JUN 15,82	0.49	0.12	0.090	0.050	0.045	0.328	0.0692
JUN 19,82	JUN 18,82	0.60	0.32	0.125	0.050	0.035	0.990	0.2512
JUN 20,82	JUN 19,82	<W 0.01	0.08	0.005	<T 0.010	0.015	0.510	0.0851
JUN 22,82	JUN 21,82	0.88	0.13	0.135	0.055	0.045	0.920	0.0009
JUN 26,82	JUN 25,82	0.55	0.30	0.075	0.660	0.035	1.460	0.0275
JUN 29,82	JUN 28,82	0.26	0.16	U 0.065	U 0.935	0.045	4.800	U 0.0000
JUL 4,82	JUL 3,82	0.46	0.30	0.100	0.100	0.060	1.360	0.1622
JUL 12,82	JUL 11,82	U 1.28	0.30	U 0.285	0.240	0.070	*****	0.0102
JUL 18,82	JUL 17,82	0.30	0.12	0.050	0.025	0.040	0.440	0.0407
JUL 19,82	JUL 18,82	0.36	0.16	0.110	0.715	0.075	1.250	0.0065
JUL 28,82	JUL 27,82	0.21	0.15	0.050	0.045	<T 0.010	0.630	0.1096
JUL 31,82	JUL 30,82	1.00	0.41	0.210	0.090	0.020	0.950	0.1778
AUG 3,82	AUG 2,82	0.14	0.04	0.025	0.105	<T 0.005	0.168	0.0117
AUG 4,82	AUG 3,82	0.81	0.19	0.165	<T 0.015	0.090	0.540	0.0692
AUG 8,82	AUG 7,82	0.10	0.12	0.035	0.055	0.100	0.100	0.0589
AUG 9,82	AUG 8,82	0.20	0.21	0.040	0.135	0.115	1.080	0.1660
AUG 20,82	AUG 19,82	1.00	0.11	0.160	0.080	0.030	1.210	0.0117
AUG 21,82	AUG 20,82	0.04	0.04	0.010	0.050	0.055	0.262	0.0005
AUG 22,82	AUG 21,82	0.26	0.10	0.080	0.045	0.015	0.650	0.0832
AUG 25,82	AUG 24,82	0.04	0.03	0.010	0.035	<T 0.010	0.250	0.0525
AUG 30,82	AUG 29,82	0.39	0.35	0.065	0.135	0.165	0.510	0.0724
SEP 2,82	SEP 1,82	U 1.87	0.20	0.195	U 1.350	0.030	0.730	U 0.0005
SEP 3,82	SEP 2,82	0.17	0.09	0.035	0.035	0.020	0.580	0.0355
SEP 4,82	SEP 3,82	0.17	0.05	0.030	0.030	0.015	0.338	0.0004
SEP 15,82	SEP 14,82	0.67	0.20	0.130	0.130	0.120	0.660	0.0479
SEP 16,82	SEP 15,82	*****	0.53	*****	*****	*****	0.230	0.0048

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES 04-ON HYDRO	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
SEP 17,82	SEP 16,82	800 800	**** ****	1	1.1	1	18517	2	1	73	CD	
SEP 18,82	SEP 17,82	800 800	**** ****	1	17.5	1	18518	2	1	103	AC	
SEP 21,82	SEP 20,82	800 800	**** ****	1	1.3	1	18519	2	1	56	CD	
SEP 22,82	SEP 21,82	800 800	**** ****	1	2.4	1	18520	2	1	176	C	NT
SEP 23,82	SEP 22,82	800 800	**** ****	1	20.1	1	18521	2	1	88	C	
SEP 24,82	SEP 23,82	800 800	**** ****	1	1.8	1	18522	2	1	71	C	T
SEP 25,82	SEP 24,82	800 800	**** ****	1	16.0	1	18523	2	1	97	CD	
SEP 26,82	SEP 25,82	800 800	**** ****	1	1.9	1	18524	2	1	55	C	
SEP 27,82	SEP 26,82	800 800	**** ****	1	16.0	1	18525	2	1	160	C	N
SEP 28,82	SEP 27,82	800 800	**** ****	1	10.9	1	18526	2	1	93	C	H
OCT 7,82	OCT 6,82	800 800	**** ****	1	1.0	1	18527	2	1	39	CD	N
OCT 8,82	OCT 7,82	800 800	**** ****	1	12.2	1	18528	2	1	105	C	
OCT 11,82	OCT 10,82	800 800	**** ****	1	9.4	1	18529	2	1	98	C	
OCT 15,82	OCT 14,82	800 800	**** ****	1	6.1	1	18530	2	1	87	C	
OCT 16,82	OCT 15,82	800 800	**** ****	1	1.0	1	18531	2	1	10	C	N
OCT 20,82	OCT 19,82	800 800	**** ****	1	****	1	18532	2	1	****	C	
OCT 23,82	OCT 22,82	800 800	**** ****	1	7.0	1	18533	2	1	****	G	N
OCT 30,82	OCT 29,82	800 800	**** ****	1	1.8	1	18534	2	1	60	D	
NOV 2,82	NOV 1,82	800 800	**** ****	1	15.6	1	18535	2	1	97	C	M
NOV 3,82	NOV 2,82	800 800	**** ****	1	25.1	2	18536	2	1	95	C	
NOV 4,82	NOV 3,82	800 800	**** ****	1	2.5	2	18537	2	1	70	C	
NOV 5,82	NOV 4,82	800 800	**** ****	3	3.3	2	18538	2	1	109	C	
NOV 12,82	NOV 11,82	800 800	**** ****	1	22.5	2	18539	2	1	104	C	
NOV 13,82	NOV 12,82	800 800	**** ****	3	8.9	2	18540	2	1	100	C	
NOV 15,82	NOV 14,82	800 800	**** ****	2	4.5	2	18541	2	1	****	EF	
NOV 20,82	NOV 19,82	800 800	**** ****	1	6.5	2	18542	2	1	96	C	
NOV 21,82	NOV 20,82	800 800	800 800	1	20.3	2	18543	2	1	94	C	
NOV 22,82	NOV 21,82	800 800	800 1000	1	0.7	2	18544	2	1	129	C	N
NOV 24,82	NOV 23,82	800 800	**** ****	3	19.0	2	18545	2	1	88	C	
NOV 27,82	NOV 26,82	800 800	**** ****	2	5.5	2	18546	2	1	****	EFK	
NOV 29,82	NOV 28,82	800 800	**** ****	1	12.9	2	18547	2	1	89	C	
NOV 30,82	NOV 29,82	800 800	**** ****	1	2.3	2	18548	2	1	85	C	
DEC 4,82	DEC 3,82	800 800	**** ****	1	10.5	2	18549	2	1	158		N
DEC 5,82	DEC 4,82	800 800	**** ****	1	2.7	2	18550	2	1	154	C	N
DEC 6,82	DEC 5,82	800 800	**** ****	1	18.7	2	18551	2	1	102		
DEC 7,82	DEC 6,82	800 800	900 1100	1	1.5	2	18552	2	1	141		N
DEC 10,82	DEC 9,82	800 800	**** ****	1	3.5	2	18553	2	1	****	IKFE	
DEC 12,82	DEC 11,82	800 800	**** ****	2	0.9	2	18554	2	1	****	FIKE	
DEC 15,82	DEC 14,82	800 800	**** ****	1	****	2	18555	2	1	****		
DEC 16,82	DEC 15,82	800 800	**** ****	1	18.9	2	18556	2	1	99		

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 17,82	SEP 16,82	52.0	*****	*****	U 6.77	0.0404	1.05	0.19
SEP 18,82	SEP 17,82	1162.0	17.1	4.33	4.35	0.0618	1.85	0.41
SEP 21,82	SEP 20,82	47.0	*****	*****	4.52	0.0610	4.05	0.71
SEP 22,82	SEP 21,82	271.0	39.5	4.10	3.97	0.1060	3.20	1.02
SEP 23,82	SEP 22,82	1139.0	36.4	4.07	3.99	0.1042	3.50	0.44
SEP 24,82	SEP 23,82	83.0	*****	*****	3.84	0.1380	6.00	0.87
SEP 25,82	SEP 24,82	998.0	38.9	4.07	4.00	0.1132	3.85	0.50
SEP 26,82	SEP 25,82	68.0	*****	*****	3.96	0.1256	2.15	0.60
SEP 27,82	SEP 26,82	1647.0	17.9	4.40	4.39	0.0592	1.50	0.30
SEP 28,82	SEP 27,82	650.0	10.7	4.82	5.02	0.0332	1.40	0.18
OCT 7,82	OCT 6,82	U 25.0	*****	*****	3.64	0.2488	> 10.00	2.34
OCT 8,82	OCT 7,82	825.0	28.3	4.21	4.14	0.0922	3.40	0.28
OCT 11,82	OCT 10,82	594.0	32.0	4.15	4.09	0.0950	3.10	0.40
OCT 15,82	OCT 14,82	342.0	11.2	5.51	5.57	0.0336	2.00	0.33
OCT 16,82	OCT 15,82	U 7.0	*****	*****	*****	*****	*****	*****
OCT 20,82	OCT 19,82	24.0	*****	*****	6.28	0.0266	0.90	0.11
OCT 23,82	OCT 22,82	U 5.0	*****	*****	*****	*****	*****	*****
OCT 30,82	OCT 29,82	70.0	*****	*****	U 7.01	0.0260	3.25	0.37
NOV 2,82	NOV 1,82	977.0	23.0	*****	4.31	0.0706	2.30	0.38
NOV 3,82	NOV 2,82	1534.0	18.5	*****	4.39	0.0608	1.75	0.32
NOV 4,82	NOV 3,82	113.0	*****	*****	4.35	0.0672	2.20	0.73
NOV 5,82	NOV 4,82	231.0	*****	*****	4.35	0.0608	1.35	0.40
NOV 12,82	NOV 11,82	1503.0	22.4	*****	4.26	0.0752	2.30	0.30
NOV 13,82	NOV 12,82	572.0	16.6	4.57	4.40	0.0536	1.75	0.17
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 20,82	NOV 19,82	400.0	27.0	4.24	4.11	0.0926	2.55	0.33
NOV 21,82	NOV 20,82	1231.0	20.0	4.39	4.30	0.0624	2.20	0.23
NOV 22,82	NOV 21,82	58.0	*****	*****	U 6.16	U 0.0344	2.75	0.25
NOV 24,82	NOV 23,82	1079.0	16.0	4.47	4.44	0.0466	1.35	0.20
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	738.0	32.0	4.17	4.09	0.1090	2.60	0.41
NOV 30,82	NOV 29,82	126.0	*****	*****	4.03	0.1244	5.75	1.03
DEC 4,82	DEC 3,82	1070.0	20.0	4.46	4.53	0.0494	2.05	0.32
DEC 5,82	DEC 4,82	267.0	*****	4.17	4.24	0.0822	2.80	0.47
DEC 6,82	DEC 5,82	1223.0	11.5	4.66	4.72	0.0374	1.10	0.12
DEC 7,82	DEC 6,82	136.0	*****	4.49	4.56	0.0494	2.40	0.58
DEC 10,82	DEC 9,82	*****	*****	*****	*****	*****	*****	*****
DEC 12,82	DEC 11,82	*****	*****	*****	*****	*****	*****	*****
DEC 15,82	DEC 14,82	11.0	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	1200.0	18.0	4.50	4.47	0.0588	1.40	0.22

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHM #03

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE LAB H+ MG/L
SEP 17,82	SEP 16,82	*****	0.46	*****	*****	*****	*****	U 0.0002
SEP 18,82	SEP 17,82	0.15	0.11	0.040	0.045	0.080	0.290	0.0447
SEP 21,82	SEP 20,82	*****	0.24	*****	*****	*****	*****	0.0302
SEP 22,82	SEP 21,82	0.41	0.18	0.040	0.060	0.060	0.480	0.1072
SEP 23,82	SEP 22,82	0.07	0.11	0.010	0.030	0.015	0.390	0.1023
SEP 24,82	SEP 23,82	*****	0.24	*****	*****	*****	1.010	0.1445
SEP 25,82	SEP 24,82	0.13	0.10	0.010	0.030	0.025	0.540	0.1000
SEP 26,82	SEP 25,82	0.42	0.16	0.055	0.045	0.090	*****	0.1096
SEP 27,82	SEP 26,82	0.09	0.13	0.005	0.040	0.040	0.274	0.0407
SEP 28,82	SEP 27,82	0.05	0.16	0.015	0.045	0.080	0.560	0.0095
OCT 7,82	OCT 6,82	*****	*****	*****	*****	*****	*****	0.2291
OCT 8,82	OCT 7,82	0.02	0.17	0.020	0.075	0.065	0.364	0.0724
OCT 11,82	OCT 10,82	0.03	0.12	0.020	0.030	0.020	0.246	0.0813
OCT 15,82	OCT 14,82	0.54	0.13	0.095	0.060	0.020	0.480	0.0027
OCT 16,82	OCT 15,82	*****	*****	*****	*****	*****	*****	*****
OCT 20,82	OCT 19,82	*****	0.51	*****	*****	*****	*****	0.0005
OCT 23,82	OCT 22,82	*****	*****	*****	*****	*****	*****	*****
OCT 30,82	OCT 29,82	*****	0.29	*****	*****	*****	0.420	U 0.0001
NOV 2,82	NOV 1,82	0.14	0.12	0.020	0.040	0.080	0.046	0.0490
NOV 3,82	NOV 2,82	0.13	0.13	0.030	0.050	0.075	0.156	0.0407
NOV 4,82	NOV 3,82	*****	0.17	*****	*****	*****	0.172	0.0447
NOV 5,82	NOV 4,82	*****	0.07	*****	*****	*****	0.236	0.0447
NOV 12,82	NOV 11,82	0.14	0.09	0.025	0.030	0.030	0.148	0.0550
NOV 13,82	NOV 12,82	0.10	0.13	0.015	0.020	0.120	0.210	0.0398
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 20,82	NOV 19,82	U 0.05	0.21	U 0.150	0.025	0.010	0.178	0.0776
NOV 21,82	NOV 20,82	0.06	0.16	<W 0.005	0.025	0.080	0.230	0.0501
NOV 22,82	NOV 21,82	*****	0.91	*****	*****	*****	*****	U 0.0007
NOV 24,82	NOV 23,82	0.05	0.10	0.015	U 0.150	0.020	0.134	0.0363
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	0.04	0.17	<W 0.005	0.150	0.015	0.160	0.0813
NOV 30,82	NOV 29,82	0.37	0.64	0.075	0.310	0.380	U 1.150	0.0933
DEC 4,82	DEC 3,82	0.17	0.27	0.045	0.025	0.110	0.342	0.0295
DEC 5,82	DEC 4,82	0.20	0.27	0.045	0.015	0.130	0.288	0.0575
DEC 6,82	DEC 5,82	0.03	0.11	<T 0.005	<T 0.005	0.020	U 0.136	0.0191
DEC 7,82	DEC 6,82	0.28	0.18	0.060	0.035	0.050	0.710	0.0275
DEC 10,82	DEC 9,82	*****	*****	*****	*****	*****	*****	*****
DEC 12,82	DEC 11,82	*****	*****	*****	*****	*****	*****	*****
DEC 15,82	DEC 14,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	0.07	0.11	0.015	0.030	0.060	0.148	0.0339

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER	COMMENTS	
								02-APIOS	01-MOE	EFFICI- ENCY (%)	FIELD	OFFICE
								03-SPECIAL	03-AES	04-ON HYDRO		
DEC 17,82	DEC 16,82	800 800	**** ****	1	2.6	2	18557	2	1	60		M
DEC 19,82	DEC 18,82	800 800	**** ****	2	3.9	2	18558	2	1	59		HM
DEC 20,82	DEC 19,82	800 800	**** ****	2	15.9	2	18559	2	1	64	C	
DEC 21,82	DEC 20,82	800 800	**** ****	2	5.5	2	18560	2	1	24	C	NH
DEC 24,82	DEC 23,82	800 800	1000 800	1	7.1	2	18561	2	1	96	A	
DEC 25,82	DEC 24,82	800 800	800 800	1	21.7	2	18562	2	1	102		
DEC 26,82	DEC 25,82	800 800	**** ****	1	1.9	2	18563	2	1	160	C	NJH
DEC 28,82	DEC 27,82	800 800	**** ****	1	8.3	2	18564	2	1	108	C	
DEC 30,82	DEC 29,82	800 800	**** ****	3	****	2	18565	2	1	****		

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
DEC 17,82	DEC 16,82	100.0	*****	*****	U 6.55	0.0244	1.20	0.16
DEC 19,82	DEC 18,82	148.0	*****	*****	U 5.56	0.0382	8.35	1.93
DEC 20,82	DEC 19,82	656.0	12.3	4.48	4.68	0.0454	0.60	0.35
DEC 21,82	DEC 20,82	U 86.0	*****	*****	5.21	0.0316	1.05	0.25
DEC 24,82	DEC 23,82	438.0	51.0	3.89	4.02	0.1366	4.70	0.80
DEC 25,82	DEC 24,82	1420.0	18.0	4.33	4.45	0.0624	1.65	0.18
DEC 26,82	DEC 25,82	195.0	*****	U 5.60	U 6.19	0.0248	2.45	0.26
DEC 28,82	DEC 27,82	577.0	24.0	4.21	4.36	0.0690	2.25	0.30
DEC 30,82	DEC 29,82	12.0	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHM #03

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLDRIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
DEC 17,82	DEC 16,82	0.65	0.18	0.160	0.070	0.140	0.500	0.0003
DEC 19,82	DEC 18,82	U 2.00	1.20	U 0.500	0.110	0.570	U 1.190	0.0028
DEC 20,82	DEC 19,82	0.14	0.05	0.040	0.020	0.030	0.092	0.0209
DEC 21,82	DEC 20,82	0.26	0.43	0.065	0.345	0.350	0.360	0.0062
DEC 24,82	DEC 23,82	0.21	0.39	0.040	0.100	0.180	0.680	0.0955
DEC 25,82	DEC 24,82	0.08	0.31	0.025	0.040	0.185	0.224	0.0355
DEC 26,82	DEC 25,82	0.63	U 0.99	U 0.065	U 0.490	U 0.915	U 0.530	U 0.0006
DEC 28,82	DEC 27,82	0.07	0.32	0.020	0.090	0.180	0.288	0.0437
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/SES

#04

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
JAN 3,82	JAN 2,82	830 830	2400 430	2	0.5	2	18686	2	1	48	CD	N
JAN 4,82	JAN 3,82	830 530	2000 530	3	3.3	2	18687	2	1	93		
JAN 5,82	JAN 4,82	530 530	530 100	2	14.1	2	18688	2	1	***	CGE	
JAN 7,82	JAN 6,82	530 530	**** ****	2	1.1	2	18689	2	1	36	C	N
JAN 10,82	JAN 9,82	800 1330	1400 1300	2	3.7	2	18690	2	1	48	CD	NHCM
JAN 11,82	JAN 10,82	1330 1330	1330 1300	2	6.5	2	18691	2	1	133	C	NM
JAN 12,82	JAN 11,82	1330 530	**** ****	2	15.1	2	18692	2	1	50		
JAN 13,82	JAN 12,82	530 530	2400 530	2	1.9	2	18693	2	1	54		
JAN 14,82	JAN 13,82	530 530	**** ****	2	****	*	18694	2	1	***	E	
JAN 15,82	JAN 14,82	530 530	**** ****	2	1.1	2	18695	2	1	52	C	
JAN 16,82	JAN 15,82	530 830	**** ****	2	1.9	2	18696	2	1	53	C	
JAN 17,82	JAN 16,82	830 1300	1300 1100	2	7.3	2	18697	2	1	19	C	NH
JAN 18,82	JAN 17,82	1300 530	1300 1500	2	0.6	2	18698	2	1	25	C	
JAN 20,82	JAN 19,82	530 530	1700 2000	2	1.8	2	18699	2	1	69	C	
JAN 21,82	JAN 20,82	530 530	2300 500	2	3.1	2	18700	2	1	8	D	N
JAN 23,82	JAN 22,82	530 1300	**** ****	3	18.3	2	18701	2	1	56	C	
JAN 24,82	JAN 23,82	1300 1600	1300 1600	2	4.5	2	18702	2	1	15	C	N
JAN 26,82	JAN 25,82	530 530	2200 400	2	3.7	2	18703	2	1	29	C	NH
JAN 27,82	JAN 26,82	530 530	1500 1630	2	****	2	18704	2	1	***	C	
JAN 29,82	JAN 28,82	530 530	1300 1600	2	1.9	2	18705	2	1	17	C	N
JAN 30,82	JAN 29,82	530 830	2100 530	2	10.4	2	18706	2	1	78		
FEB 1,82	JAN 31,82	830 530	**** ****	2	****	2	18707	2	1	***	C	M
FEB 2,82	FEB 1,82	530 530	**** ****	2	10.6	2	18708	2	1	42	C	N
FEB 3,82	FEB 2,82	530 530	**** ****	2	3.7	2	18709	2	1	43	C	
FEB 4,82	FEB 3,82	530 530	800 1300	2	11.6	2	18710	2	1	36		
FEB 6,82	FEB 5,82	530 530	**** ****	2	7.1	2	18711	2	1	74	C	
FEB 9,82	FEB 8,82	530 530	2400 530	2	1.8	2	18712	2	1	71		
FEB 10,82	FEB 9,82	530 530	530 1500	2	1.3	2	18713	2	1	59	C	
FEB 13,82	FEB 12,82	530 830	2300 300	1	0.5	2	18714	2	1	64	C	
FEB 19,82	FEB 18,82	530 530	1200 530	3	6.3	2	18715	2	1	70	C	
FEB 20,82	FEB 19,82	530 1600	**** ****	3	1.5	2	18716	2	1	56	C	
FEB 21,82	FEB 20,82	1600 1100	1600 700	3	1.0	2	18717	2	1	10	CD	N
FEB 24,82	FEB 23,82	530 530	**** ****	2	1.1	2	18718	2	1	54	D	
MAR 2,82	MAR 1,82	530 530	700 1100	2	2.2	2	18719	2	1	34	C	NH
MAR 5,82	MAR 4,82	530 530	1030 1500	3	13.3	2	18720	2	1	54	CD	
MAR 6,82	MAR 5,82	530 830	530 1100	3	2.2	2	18721	2	1	37	C	N
MAR 9,82	MAR 8,82	530 530	2200 530	2	4.1	2	18722	2	1	38	C	N
MAR 11,82	MAR 10,82	530 530	**** ****	3	4.3	2	18723	2	1	69	C	
MAR 12,82	MAR 11,82	530 530	**** ****	3	1.9	2	18724	2	1	104	AC	
MAR 13,82	MAR 12,82	530 830	2200 600	1	8.3	2	18725	2	1	101		

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 3+82	JAN 2,82	U 40.0	*****	*****	4.18	*****	10.00	U 2.00
JAN 4+82	JAN 3,82	504.0	40.3	*****	4.12	0.1296	3.00	0.70
JAN 5+82	JAN 4,82	*****	*****	*****	*****	*****	*****	*****
JAN 7+82	JAN 6,82	U 66.0	*****	*****	U 7.54	*****	2.50	0.97
JAN 10+82	JAN 9,82	U 292.0	56.0	*****	U 7.14	U 0.0572	2.80	0.89
JAN 11+82	JAN 10,82	1422.0	17.0	U 6.75	U 6.75	U 0.0348	1.05	0.10
JAN 12+82	JAN 11,82	1251.0	27.0	*****	4.21	*****	0.85	0.83
JAN 13+82	JAN 12,82	169.0	34.5	*****	4.18	*****	0.75	1.03
JAN 14+82	JAN 13,82	*****	*****	*****	*****	*****	*****	*****
JAN 15+82	JAN 14,82	94.0	*****	*****	4.12	*****	2.05	1.93
JAN 16+82	JAN 15,82	167.0	37.0	*****	4.20	*****	1.75	1.26
JAN 17+82	JAN 16,82	U 229.0	67.0	*****	U 7.14	U 0.0464	3.25	0.81
JAN 18+82	JAN 17,82	U 25.0	*****	*****	U 6.31	*****	*****	*****
JAN 20+82	JAN 19,82	206.0	*****	*****	4.26	0.0976	U 2.30	U 1.12
JAN 21+82	JAN 20,82	U 43.0	*****	*****	U 6.47	*****	1.10	0.28
JAN 23+82	JAN 22,82	1686.0	21.5	*****	4.34	0.0736	1.45	0.33
JAN 24+82	JAN 23,82	U 118.0	2.5	*****	U 6.77	*****	2.50	0.42
JAN 26+82	JAN 25,82	U 180.0	*****	*****	U 6.23	*****	1.50	0.30
JAN 27+82	JAN 26,82	15.0	*****	*****	*****	*****	*****	*****
JAN 29+82	JAN 28,82	U 53.0	*****	*****	U 5.18	*****	U 7.40	U 2.73
JAN 30+82	JAN 29,82	1337.0	16.4	4.56	4.46	0.0734	0.55	0.43
FEB 1+82	JAN 31,82	140.0	U 87.5	*****	U 7.45	*****	18.85	0.19
FEB 2+82	FEB 1,82	U 747.0	12.9	4.72	4.62	0.0626	1.25	0.18
FEB 3+82	FEB 2,82	U 265.0	34.8	*****	4.20	0.1050	2.15	0.82
FEB 4+82	FEB 3,82	U 699.0	11.5	4.71	4.64	0.0542	0.50	0.20
FEB 6+82	FEB 5,82	867.0	30.0	4.33	4.17	0.1092	0.95	0.74
FEB 9+82	FEB 8,82	210.0	*****	*****	4.08	*****	0.75	1.22
FEB 10+82	FEB 9,82	126.0	18.4	*****	4.59	*****	1.10	0.47
FEB 13+82	FEB 12,82	53.0	*****	*****	U 3.48	*****	U 7.80	U 5.50
FEB 19+82	FEB 18,82	729.0	45.8	*****	4.01	0.1354	3.45	0.75
FEB 20+82	FEB 19,82	140.0	142.0	*****	3.52	*****	11.15	2.46
FEB 21+82	FEB 20,82	U 17.0	*****	*****	*****	*****	*****	*****
FEB 24+82	FEB 23,82	99.0	*****	*****	3.52	*****	11.15	3.63
MAR 2+82	MAR 1,82	U 123.0	*****	*****	U 6.99	*****	U 11.70	U 3.02
MAR 5+82	MAR 4,82	1194.0	31.5	*****	4.35	0.0896	3.10	0.68
MAR 6+82	MAR 5,82	U 137.0	*****	*****	4.29	*****	3.25	1.81
MAR 9+82	MAR 8,82	U 260.0	38.6	*****	4.28	0.0940	2.05	1.45
MAR 11+82	MAR 10,82	489.0	U 84.1	3.80	3.83	0.2248	6.05	1.82
MAR 12+82	MAR 11,82	327.0	69.0	*****	3.94	0.1696	6.35	1.52
MAR 13+82	MAR 12,82	1375.0	53.5	3.97	3.98	0.1604	4.70	0.68

ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : WELLESLEY/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 3,82	JAN 2,82	*****	U 1.50	*****	*****	*****	*****	0.0661
JAN 4,82	JAN 3,82	0.06	0.10	0.010	0.020	0.030	0.530	0.0759
JAN 5,82	JAN 4,82	*****	*****	*****	*****	*****	*****	*****
JAN 7,82	JAN 6,82	*****	U 1.19	*****	*****	*****	*****	U 0.0000
JAN 10,82	JAN 9,82	U 6.20	U 1.70	U 1.350	0.210	U 0.900	0.460	U 0.0001
JAN 11,82	JAN 10,82	U 1.38	U 1.48	U 0.410	0.070	U 0.780	0.072	U 0.0002
JAN 12,82	JAN 11,82	0.08	0.42	0.025	0.020	0.080	0.302	0.0617
JAN 13,82	JAN 12,82	0.42	0.72	0.035	0.050	0.200	0.086	0.0661
JAN 14,82	JAN 13,82	*****	*****	*****	*****	*****	*****	*****
JAN 15,82	JAN 14,82	*****	1.15	*****	*****	*****	*****	0.0759
JAN 16,82	JAN 15,82	0.59	0.86	0.100	0.040	0.610	0.344	0.0631
JAN 17,82	JAN 16,82	U 5.20	U 5.36	U 1.350	0.320	U 3.450	0.450	U 0.0001
JAN 18,82	JAN 17,82	*****	*****	*****	*****	*****	*****	U 0.0005
JAN 20,82	JAN 19,82	U 1.24	0.88	U 0.175	0.080	0.450	U 0.244	0.0550
JAN 21,82	JAN 20,82	*****	1.15	*****	*****	*****	*****	U 0.0003
JAN 23,82	JAN 22,82	0.19	0.43	0.030	0.020	0.350	0.126	0.0457
JAN 24,82	JAN 23,82	*****	U 2.12	*****	*****	*****	0.196	U 0.0002
JAN 26,82	JAN 25,82	0.83	0.76	0.220	0.050	0.500	0.358	U 0.0006
JAN 27,82	JAN 26,82	*****	*****	*****	*****	*****	*****	*****
JAN 29,82	JAN 28,82	*****	U 3.38	*****	*****	*****	*****	U 0.0066
JAN 30,82	JAN 29,82	0.04	0.22	<T 0.005	0.005	0.105	0.090	0.0347
FEB 1,82	JAN 31,82	U 10.30	0.42	U 2.550	U 0.155	U 2.400	0.276	U 0.0000
FEB 2,82	FEB 1,82	0.24	0.15	0.045	0.015	0.090	0.128	0.0240
FEB 3,82	FEB 2,82	0.35	0.78	0.055	0.050	0.250	0.490	0.0631
FEB 4,82	FEB 3,82	0.02	0.04	<T 0.005	<T 0.005	0.010	0.076	0.0229
FEB 6,82	FEB 5,82	0.04	0.59	0.020	0.015	0.250	0.158	0.0676
FEB 9,82	FEB 8,82	0.17	0.41	0.040	0.025	0.330	0.114	0.0832
FEB 10,82	FEB 9,82	0.30	0.83	0.065	0.020	0.450	0.308	0.0257
FEB 13,82	FEB 12,82	*****	U 2.80	*****	*****	*****	*****	U 0.3311
FEB 19,82	FEB 18,82	0.25	0.38	0.055	0.005	0.165	0.292	0.0977
FEB 20,82	FEB 19,82	0.43	0.89	0.075	0.045	0.350	1.840	0.3020
FEB 21,82	FEB 20,82	*****	*****	*****	*****	*****	*****	*****
FEB 24,82	FEB 23,82	0.52	0.61	0.065	0.075	0.260	< 2.000	0.3020
MAR 2,82	MAR 1,82	U 9.27	U 3.83	U 1.250	0.120	U 2.650	U 2.000	U 0.0001
MAR 5,82	MAR 4,82	0.71	0.38	0.165	0.030	0.195	0.450	0.0447
MAR 6,82	MAR 5,82	U 1.42	U 1.46	0.265	0.050	U 0.965	0.840	0.0513
MAR 9,82	MAR 8,82	0.94	1.03	0.215	0.025	0.650	0.530	0.0525
MAR 11,82	MAR 10,82	0.80	0.77	0.155	0.050	0.395	0.920	0.1479
MAR 12,82	MAR 11,82	0.83	0.41	0.070	0.025	0.170	1.440	0.1148
MAR 13,82	MAR 12,82	0.30	0.31	0.045	0.020	0.175	0.490	0.1047

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR. HR.	SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
		START/END	START/END									HR. HR.	01-RAIN 02-SNOW 03-COMP/04-ICE
MAR 17,82	MAR 16,82	530	530	1000 1630	1	8.4	2	18726	2	1	80	C	
MAR 18,82	MAR 17,82	530	530	530 700	1	0.7	2	18727	2	1	46	AC	N
MAR 21,82	MAR 20,82	830	830	1300 1700	1	****	2	18728	2	1	****	C	
MAR 22,82	MAR 21,82	830	830	2400 400	3	1.4	2	18729	2	1	47		N
MAR 26,82	MAR 25,82	530	630	1300 1900	3	5.3	2	18730	2	1	96	C	JHM
MAR 31,82	MAR 30,82	530	530	1800 200	1	27.0	2	18731	2	1	97	C	
APR 1,82	MAR 31,82	530	530	1300 1700	1	2.2	2	18732	2	1	133	CD	NJ
APR 4,82	APR 3,82	1130	830	**** ****	2	****	2	18733	2	1	****	C	CM
APR 5,82	APR 4,82	830	530	830 2200	2	2.0	2	18734	2	1	35	C	N
APR 6,82	APR 5,82	530	530	**** ****	1	6.0	2	18735	2	1	13	C	N
APR 11,82	APR 10,82	830	700	2100 700	2	3.3	2	18736	2	1	56		
APR 12,82	APR 11,82	700	530	**** ****	2	1.5	2	18737	2	1	78		H
APR 13,82	APR 12,82	530	530	530 1000	1	1.8	2	18738	2	1	119		
APR 14,82	APR 13,82	530	530	**** ****	1	3.4	2	18739	2	1	124	C	N
APR 17,82	APR 16,82	530	900	1800 900	1	16.6	2	18740	2	1	108	C	
APR 18,82	APR 17,82	900	800	900 1000	1	0.6	2	18741	2	1	67	C	
APR 20,82	APR 19,82	530	503	**** ****	1	1.0	2	18742	2	1	136	C	N
APR 21,82	APR 20,82	530	900	**** ****	3	13.9	2	18743	2	1	99	D	
APR 27,82	APR 26,82	530	530	**** ****	1	1.3	2	18744	2	1	134	CD	NM

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PHB.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAR 17.82	MAR 16,82	1110.0	49.9	4.08	4.05	0.1276	4.50	1.22
MAR 18.82	MAR 17,82	U 53.0	*****	*****	3.32	*****	6.35	2.80
MAR 21.82	MAR 20,82	280.0	U 244.0	*****	U 3.38	0.5604	U 16.00	U 5.90
MAR 22.82	MAR 21,82	U 109.0	*****	*****	U 3.73	0.2368	U 10.70	1.93
MAR 26.82	MAR 25,82	841.0	16.5	U 5.89	U 6.37	U 0.0278	2.10	0.33
MAR 31.82	MAR 30,82	4313.0	17.2	4.41	4.55	0.0476	2.75	0.42
APR 1.82	MAR 31,82	481.0	24.0	U 6.18	U 6.65	U 0.0300	3.70	0.81
APR 4.82	APR 3,82	417.0	38.2	U 7.20	U 7.50	U 0.0250	1.25	0.36
APR 5.82	APR 4,82	U 118.0	U 84.0	*****	U 7.78	U 0.0326	2.75	0.60
APR 6.82	APR 5,82	U 134.0	*****	*****	U 7.08	0.0246	0.85	0.27
APR 11.82	APR 10,82	305.0	36.7	*****	U 6.78	U 0.0304	3.95	1.24
APR 12.82	APR 11,82	193.0	33.8	*****	4.60	0.0680	4.95	1.00
APR 13.82	APR 12,82	352.0	64.0	3.96	4.20	0.1318	9.30	1.73
APR 14.82	APR 13,82	696.0	26.8	4.41	4.68	0.0530	4.25	0.67
APR 17.82	APR 16,82	2949.0	32.7	4.17	4.32	0.0806	3.70	0.49
APR 18.82	APR 17,82	66.0	*****	*****	4.36	0.0842	12.75	1.30
APR 20.82	APR 19,82	224.0	60.0	*****	U 7.09	0.0376	9.35	1.77
APR 21.82	APR 20,82	2273.0	49.2	4.29	4.13	0.1208	4.90	0.78
APR 27.82	APR 26,82	287.0	U 116.0	*****	U 7.54	0.0390	U 13.40	U 2.66

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAR 17,82	MAR 16,82	1.00	0.32	0.235	0.040	0.080	0.560	0.0891
MAR 18,82	MAR 17,82	*****	0.28	*****	*****	*****	*****	0.4786
MAR 21,82	MAR 20,82	U 2.25	U 1.07	U 0.445	0.145	0.280	U 2.500	U 0.4169
MAR 22,82	MAR 21,82	*****	0.38	*****	*****	*****	U 2.550	U 0.1862
MAR 26,82	MAR 25,82	0.98	0.42	0.170	0.020	U 0.265	0.820	U 0.0004
MAR 31,82	MAR 30,82	0.65	0.38	0.075	0.025	0.145	0.274	0.0282
APR 1,82	MAR 31,82	U 1.16	0.29	0.175	0.085	0.080	U 1.280	U 0.0002
APR 4,82	APR 3,82	U 4.52	0.21	U 1.000	0.125	0.080	0.124	U 0.0000
APR 5,82	APR 4,82	*****	U 1.51	*****	*****	*****	*****	U 0.0000
APR 6,82	APR 5,82	*****	0.32	*****	*****	*****	0.390	U 0.0001
APR 11,82	APR 10,82	U 2.01	U 1.54	U 0.715	0.020	U 1.100	0.790	U 0.0002
APR 12,82	APR 11,82	0.46	0.14	0.240	0.015	0.050	U 1.730	0.0251
APR 13,82	APR 12,82	2.06	0.48	0.300	0.120	0.160	U 1.630	0.0631
APR 14,82	APR 13,82	0.70	0.13	0.075	0.040	0.035	1.070	0.0209
APR 17,82	APR 16,82	0.17	0.15	0.045	0.015	0.040	0.580	0.0479
APR 18,82	APR 17,82	*****	0.52	*****	*****	*****	*****	0.0437
APR 20,82	APR 19,82	U 3.99	0.51	U 0.775	0.185	0.245	U 2.800	U 0.0001
APR 21,82	APR 20,82	0.26	0.17	0.045	0.035	0.030	0.760	0.0741
APR 27,82	APR 26,82	U 13.30	U 3.57	U 1.950	U 0.410	U 0.845	U 2.850	U 0.0000

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER
MAY 8,82	MAY 7,82	530 1030	1830 1030	1	5.3	1	18745	2	1	74	A	J
MAY 19,82	MAY 18,82	530 530	100 500	1	1.4	1	18746	2	1	91	C	
MAY 20,82	MAY 19,82	530 530	1500 1900	1	5.3	1	18747	2	1	100	C	J
MAY 23,82	MAY 22,82	530 530	*** ***	1	8.6	1	18748	2	1	94		
MAY 27,82	MAY 26,82	530 530	100 500	1	1.3	1	18749	2	1	48		N
MAY 28,82	MAY 27,82	530 530	2300 500	1	29.4	1	18750	2	1	107	A	T
MAY 29,82	MAY 28,82	530 530	1930 2100	1	21.3	1	18751	2	1	100		
JUN 1,82	MAY 31,82	530 530	1200 1300	1	4.7	1	18752	2	1	89		
JUN 2,82	JUN 1,82	530 530	1200 1600	1	7.6	1	18753	2	1	92		
JUN 5,82	JUN 4,82	530 1000	830 1000	1	2.8	1	18754	2	1	90		
JUN 6,82	JUN 5,82	1000 730	1000 300	1	22.2	1	18755	2	1	96		JC
JUN 16,82	JUN 15,82	530 530	1900 2300	*	17.5	1	18756	2	1	98		
JUN 19,82	JUN 18,82	530 530	1730 2030	1	9.4	1	18758	2	1	99	AD	
JUN 20,82	JUN 19,82	530 530	900 1400	1	11.7	1	18760	2	1	96	AC	J
JUN 21,82	JUN 20,82	530 530	1400 1600	1	11.2	1	18762	2	1	95	A	
JUN 26,82	JUN 25,82	530 530	1530 2200	1	7.9	1	18764	2	1	91	DA	
JUN 29,82	JUN 28,82	530 530	230 530	1	16.9	1	18765	2	1	102	AC	
JUN 30,82	JUN 29,82	530 530	530 800	1	1.8	1	18766	2	1	64		
JUL 4,82	JUL 3,82	530 1100	2000 1100	1	2.5	1	18767	2	1	74		
JUL 12,82	JUL 11,82	530 530	*** ***	1	4.6	1	18768	2	1	90		
JUL 18,82	JUL 17,82	530 530	900 1800	1	31.2	1	18769	2	1	100	AB	
JUL 19,82	JUL 18,82	530 530	1630 1830	1	47.2	1	18770	2	1	95		
JUL 28,82	JUL 27,82	530 530	1500 300	1	32.2	1	18771	2	1	102		T
AUG 3,82	AUG 2,82	530 530	730 1100	1	14.8	1	18772	2	1	100	A	
AUG 4,82	AUG 3,82	530 530	1800 400	1	19.4	1	18773	2	1	103		
AUG 8,82	AUG 7,82	530 1130	300 1130	1	7.8	1	18774	2	1	96	C	
AUG 9,82	AUG 8,82	1130 530	1130 1400	1	5.4	1	18775	2	1	99		
AUG 19,82	AUG 18,82	830 830	*** ***	1	15.3	1	18776	2	1	102	C	
AUG 21,82	AUG 20,82	830 830	2200 500	1	5.7	1	18777	2	1	87		JC
AUG 22,82	AUG 21,82	1100 530	1230 1600	1	4.9	1	18778	2	1	70	AC	
AUG 25,82	AUG 24,82	530 930	200 730	1	49.4	1	18779	2	1	105		
AUG 29,82	AUG 28,82	530 530	200 400	1	1.8	1	18780	2	1	40	CD	N
SEP 2,82	SEP 1,82	530 530	200 600	1	1.3	1	18781	2	1	92	D	T
SEP 3,82	SEP 2,82	530 530	*** ***	1	8.3	1	18782	2	1	106		
SEP 15,82	SEP 14,82	530 530	1700 1830	1	26.6	1	18783	2	1	104		
SEP 16,82	SEP 15,82	530 530	200 300	1	1.1	1	18784	2	1	21	D	N
SEP 18,82	SEP 17,82	530 900	245 600	1	17.5	1	18785	2	1	***	ACG	
SEP 21,82	SEP 20,82	530 530	830 930	1	1.6	1	18786	2	1	65		
SEP 22,82	SEP 21,82	530 530	200 530	1	3.4	1	18787	2	1	79		
SEP 23,82	SEP 22,82	530 530	530 1230	1	17.0	1	18788	2	1	99		

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 8,82	MAY 7,82	254.0	12.2	5.92	6.38	0.0298	1.40	0.50
MAY 19,82	MAY 18,82	82.0	*****	*****	3.44	0.4840	21.75	3.45
MAY 20,82	MAY 19,82	342.0	U 20.8	U 5.47	6.34	0.0356	3.70	0.75
MAY 23,82	MAY 22,82	522.0	59.0	3.89	4.00	0.1460	5.90	0.73
MAY 27,82	MAY 26,82	U 40.0	*****	*****	3.65	0.2664	8.35	2.01
MAY 28,82	MAY 27,82	2034.0	43.6	3.93	U 3.95	0.1116	3.95	0.44
MAY 29,82	MAY 28,82	1378.0	22.8	4.26	4.26	0.0638	1.90	0.27
JUN 1,82	MAY 31,82	269.0	59.9	3.77	3.82	0.1528	5.35	0.49
JUN 2,82	JUN 1,82	450.0	27.4	4.14	4.21	0.0730	2.15	0.29
JUN 5,82	JUN 4,82	163.0	46.2	*****	3.94	0.1170	3.60	0.64
JUN 6,82	JUN 5,82	1373.0	8.1	4.63	5.02	0.0260	0.60	0.11
JUN 16,82	JUN 15,82	1110.0	37.9	*****	4.10	0.0948	4.10	0.51
JUN 19,82	JUN 18,82	602.0	37.1	4.32	4.57	0.0580	5.95	1.29
JUN 20,82	JUN 19,82	723.0	35.2	4.26	U 6.77	0.0570	6.20	0.97
JUN 21,82	JUN 20,82	686.0	18.6	4.40	4.42	0.0526	2.35	0.35
JUN 26,82	JUN 25,82	465.0	45.0	4.00	4.06	0.1126	5.00	0.42
JUN 29,82	JUN 28,82	1105.0	53.5	3.90	3.94	0.1424	6.10	0.51
JUN 30,82	JUN 29,82	74.0	*****	*****	4.36	0.0582	1.50	0.24
JUL 4,82	JUL 3,82	120.0	*****	*****	4.38	0.0680	3.90	0.64
JUL 12,82	JUL 11,82	266.0	52.0	3.89	3.95	0.1384	4.85	0.53
JUL 18,82	JUL 17,82	2008.0	31.5	4.13	4.24	0.0806	3.50	0.36
JUL 19,82	JUL 18,82	2897.0	39.4	4.06	4.12	0.0982	4.40	0.36
JUL 28,82	JUL 27,82	2109.0	45.3	*****	3.94	0.1126	5.15	0.36
AUG 3,82	AUG 2,82	949.0	29.9	*****	4.19	0.0716	2.65	0.55
AUG 4,82	AUG 3,82	1286.0	59.0	*****	3.88	0.1430	6.45	0.98
AUG 8,82	AUG 7,82	484.0	27.9	*****	4.19	0.0698	2.35	0.30
AUG 9,82	AUG 8,82	345.0	65.0	*****	3.82	0.1618	7.45	0.63
AUG 19,82	AUG 18,82	1003.0	41.6	4.11	4.15	0.1030	6.30	0.66
AUG 21,82	AUG 20,82	320.0	3.6	5.55	6.24	0.0222	0.20	0.05
AUG 22,82	AUG 21,82	221.0	33.1	4.10	4.18	0.0964	4.15	0.52
AUG 25,82	AUG 24,82	3347.0	20.3	4.35	4.32	0.0606	1.90	0.23
AUG 29,82	AUG 28,82	U 47.0	*****	*****	6.61	0.0212	3.40	0.66
SEP 2,82	SEP 1,82	77.0	*****	*****	3.55	0.2740	> 10.00	1.57
SEP 3,82	SEP 2,82	565.0	16.7	4.49	4.55	0.0580	2.40	0.30
SEP 15,82	SEP 14,82	1775.0	17.5	4.46	4.51	0.0514	2.20	0.32
SEP 16,82	SEP 15,82	U 15.0	*****	*****	4.96	0.0518	*****	*****
SEP 18,82	SEP 17,82	903.0	20.6	*****	4.32	0.0682	1.90	0.41
SEP 21,82	SEP 20,82	67.0	*****	*****	4.84	0.0560	5.70	0.97
SEP 22,82	SEP 21,82	174.0	33.2	*****	4.11	0.0920	2.95	0.80
SEP 23,82	SEP 22,82	1081.0	39.8	4.05	4.03	0.1116	3.75	0.52

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 8,82	MAY 7,82	0.34	0.08	0.090	0.025	0.025	0.780	0.0004
MAY 19,82	MAY 18,82	*****	U 0.98	*****	*****	*****	3.250	0.3631
MAY 20,82	MAY 19,82	1.24	0.15	0.330	0.080	0.045	0.900	0.0005
MAY 23,82	MAY 22,82	0.30	0.12	0.070	0.035	0.025	0.630	0.1000
MAY 27,82	MAY 26,82	*****	0.42	*****	*****	*****	*****	0.2239
MAY 28,82	MAY 27,82	0.07	0.02	0.010	<W 0.005	<T 0.010	0.330	0.1122
MAY 29,82	MAY 28,82	0.03	<W 0.01	<W 0.005	<T 0.005	<T 0.010	0.262	0.0550
JUN 1,82	MAY 31,82	0.12	0.08	0.015	<T 0.005	0.020	0.248	0.1514
JUN 2,82	JUN 1,82	0.07	<W 0.01	<W 0.005	<W 0.005	<T 0.010	0.192	0.0617
JUN 5,82	JUN 4,82	0.19	0.09	0.030	<W 0.005	0.015	0.248	0.1148
JUN 6,82	JUN 5,82	0.06	0.02	0.005	<W 0.005	<T 0.010	0.106	0.0095
JUN 16,82	JUN 15,82	0.51	0.15	0.095	0.060	0.045	0.420	0.0794
JUN 19,82	JUN 18,82	0.98	0.19	0.205	0.055	0.020	1.940	0.0269
JUN 20,82	JUN 19,82	U 0.86	0.31	U 0.145	U 0.445	0.075	U 2.750	U 0.0002
JUN 21,82	JUN 20,82	0.26	0.04	0.035	<T 0.015	<T 0.010	0.500	0.0380
JUN 26,82	JUN 25,82	0.23	0.12	0.050	<T 0.015	<T 0.005	0.460	0.0871
JUN 29,82	JUN 28,82	0.08	0.10	0.020	0.025	<T 0.005	0.640	0.1148
JUN 30,82	JUN 29,82	*****	0.04	*****	*****	*****	*****	0.0437
JUL 4,82	JUL 3,82	*****	0.16	*****	*****	*****	0.750	0.0417
JUL 12,82	JUL 11,82	0.19	0.13	0.040	<T 0.015	0.030	0.274	0.1122
JUL 18,82	JUL 17,82	0.24	0.10	0.045	0.025	0.030	0.360	0.0575
JUL 19,82	JUL 18,82	0.17	0.10	0.035	<T 0.015	0.035	0.380	0.0759
JUL 28,82	JUL 27,82	0.14	0.03	0.035	0.020	<T 0.010	0.530	0.1148
AUG 3,82	AUG 2,82	0.42	0.04	0.075	0.040	<T 0.010	0.332	0.0646
AUG 4,82	AUG 3,82	0.60	0.10	0.105	0.060	0.020	0.910	0.1318
AUG 8,82	AUG 7,82	0.10	<W 0.01	0.035	<T 0.005	<T 0.010	0.146	0.0645
AUG 9,82	AUG 8,82	0.10	0.06	0.025	0.035	<T 0.010	0.910	0.1514
AUG 19,82	AUG 18,82	0.78	0.13	0.170	0.095	0.015	0.960	0.0708
AUG 21,82	AUG 20,82	0.04	0.04	0.010	0.015	0.015	0.276	0.0006
AUG 22,82	AUG 21,82	0.25	0.17	0.070	0.090	0.045	0.700	0.0661
AUG 25,82	AUG 24,82	0.04	0.03	0.005	<T 0.005	<T 0.010	0.192	0.0479
AUG 29,82	AUG 28,82	*****	0.24	*****	*****	*****	*****	0.0002
SEP 2,82	SEP 1,82	*****	0.40	*****	*****	*****	0.960	0.2818
SEP 3,82	SEP 2,82	0.20	0.08	0.050	<T 0.010	<W 0.005	0.440	0.0282
SEP 15,82	SEP 14,82	0.34	0.12	0.060	0.005	0.010	0.340	0.0309
SEP 16,82	SEP 15,82	*****	*****	*****	*****	*****	*****	0.0110
SEP 18,82	SEP 17,82	0.16	0.08	0.030	0.025	0.015	0.328	0.0479
SEP 21,82	SEP 20,82	*****	0.23	*****	*****	*****	*****	0.0145
SEP 22,82	SEP 21,82	0.22	0.26	0.035	0.165	0.220	0.540	0.0776
SEP 23,82	SEP 22,82	0.09	0.11	0.015	0.020	0.015	0.510	0.0933

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END	HR. HR.									
		HR.	HR.									
SEP 25,82	SEP 24,82	530	530	**** ****	1	14.5	1	18789	2	1	96	
SEP 26,82	SEP 25,82	530	530	530 1000	1	2.9	1	18790	2	1	83	
SEP 27,82	SEP 26,82	530	530	**** ****	1	5.2	1	18791	2	1	95	
SEP 28,82	SEP 27,82	530	530	530 1730	1	9.1	1	18792	2	1	113	
OCT 7,82	OCT 6,82	530	530	200 400	1	2.7	1	18793	2	1	91	C
OCT 8,82	OCT 7,82	530	530	1000 1700	1	10.6	1	18794	2	1	92	
OCT 11,82	OCT 10,82	530	530	2400 400	1	5.8	1	18795	2	1	90	C
OCT 15,82	OCT 14,82	530	530	1500 1530	1	6.0	1	18796	2	1	87	C
OCT 16,82	OCT 15,82	530	1500	**** ****	3	2.6	1	18797	2	1	67	C
OCT 21,82	OCT 20,82	530	530	1200 1500	1	4.7	1	18798	2	1	79	CD
OCT 30,82	OCT 29,82	530	530	1400 1545	1	1.3	1	18799	2	1	92	D
NOV 1,82	OCT 31,82	530	800	1400 1600	1	1.9	1	18800	2	1	59	
NOV 2,82	NOV 1,82	530	530	2400 530	1	16.1	1	18801	2	1	74	
NOV 3,82	NOV 2,82	530	530	2000 200	1	21.2	1	18802	2	1	63	A
NOV 4,82	NOV 3,82	530	530	**** ****	1	2.8	1	18803	2	1	46	DF
NOV 5,82	NOV 4,82	530	530	**** ****	3	5.4	1	18804	2	1	69	F
NOV 11,82	NOV 10,82	530	530	2300 400	1	8.9	2	18805	2	1	101	F
NOV 12,82	NOV 11,82	530	530	1000 2200	1	14.7	2	18806	2	1	106	F
NOV 14,82	NOV 12,82	530	1100	**** ****	3	12.2	2	18807	2	1	79	Z
NOV 15,82	NOV 14,82	1100	530	100 500	2	1.7	2	18808	2	1	21	CD
NOV 20,82	NOV 19,82	530	930	**** ****	1	4.6	2	18809	2	1	92	
NOV 21,82	NOV 20,82	930	800	**** ****	1	19.6	2	18810	2	1	95	
NOV 22,82	NOV 21,82	800	530	**** ****	1	1.3	2	18811	2	1	110	
NOV 24,82	NOV 23,82	530	530	**** ****	3	17.5	2	18812	2	1	94	CL
NOV 27,82	NOV 26,82	530	830	1100 1500	3	4.4	2	18813	2	1	79	C
NOV 29,82	NOV 28,82	1130	900	1300 1830	1	12.7	2	18814	2	1	93	
NOV 30,82	NOV 29,82	900	530	2300 200	1	1.8	2	18815	2	1	13	N
DEC 4,82	DEC 3,82	530	900	**** ****	1	12.4	2	18816	2	1	102	CD
DEC 6,82	DEC 5,82	1000	530	**** ****	1	26.0	2	18817	2	1	96	
DEC 9,82	DEC 8,82	530	530	1900 2200	3	2.8	2	18818	2	1	55	CD
DEC 16,82	DEC 15,82	530	530	**** ****	1	18.5	2	18819	2	1	97	
DEC 17,82	DEC 16,82	530	530	**** ****	1	1.6	2	18820	2	1	15	
DEC 19,82	DEC 18,82	530	1100	1300 2200	2	3.5	2	18821	2	1	43	D
DEC 20,82	DEC 19,82	1100	530	930 1300	2	11.3	2	18822	2	1	88	
DEC 21,82	DEC 20,82	530	530	**** ****	2	****	2	18823	2	1	****	
DEC 24,82	DEC 23,82	530	1100	1100 1900	3	10.6	2	18824	2	1	90	
DEC 25,82	DEC 24,82	1100	1200	**** ****	1	15.6	2	18825	2	1	100	
DEC 26,82	DEC 25,82	1200	1100	**** ****	1	10.7	2	18826	2	1	100	
DEC 28,82	DEC 27,82	830	830	**** ****	1	8.0	2	18827	2	1	99	

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 25,82	SEP 24,82	901.0	41.5	4.03	3.99	0.1204	3.95	0.57
SEP 26,82	SEP 25,82	155.0	45.4	*****	3.94	0.1294	4.30	0.59
SEP 27,82	SEP 26,82	320.0	17.6	4.35	4.35	0.0564	1.10	0.36
SEP 28,82	SEP 27,82	662.0	14.6	4.49	4.52	0.0508	1.55	0.21
OCT 7,82	OCT 6,82	159.0	*****	*****	3.61	0.2540	10.20	1.33
OCT 8,82	OCT 7,82	628.0	31.0	4.13	4.08	0.0978	3.85	0.29
OCT 11,82	OCT 10,82	338.0	42.0	4.00	3.96	0.1234	4.20	0.57
OCT 15,82	OCT 14,82	336.0	10.6	5.31	5.79	0.0366	1.85	0.33
OCT 16,82	OCT 15,82	113.0	*****	*****	6.30	0.0236	0.55	0.02
OCT 21,82	OCT 20,82	239.0	*****	4.64	4.65	0.0508	2.65	0.25
OCT 30,82	OCT 29,82	77.0	*****	*****	U 7.03	0.0256	3.75	0.46
NOV 1,82	OCT 31,82	72.0	*****	*****	4.12	0.1110	6.30	0.91
NOV 2,82	NOV 1,82	765.0	28.5	*****	4.19	0.0838	3.15	0.53
NOV 3,82	NOV 2,82	861.0	19.1	*****	4.39	0.0584	2.00	0.37
NOV 4,82	NOV 3,82	U 83.0	*****	*****	4.42	0.0640	2.20	0.87
NOV 5,82	NOV 4,82	242.0	16.4	*****	4.43	0.0556	1.35	0.34
NOV 11,82	NOV 10,82	577.0	25.4	*****	4.23	0.0794	2.75	0.39
NOV 12,82	NOV 11,82	1007.0	20.0	*****	4.31	0.0690	2.00	0.25
NOV 14,82	NOV 12,82	624.0	15.4	4.50	4.44	0.0496	1.65	0.17
NOV 15,82	NOV 14,82	U 23.0	*****	*****	4.17	0.0742	*****	*****
NOV 20,82	NOV 19,82	272.0	*****	4.15	4.09	0.0958	3.25	U 1.16
NOV 21,82	NOV 20,82	1203.0	19.0	4.49	4.35	0.0580	1.95	0.18
NOV 22,82	NOV 21,82	92.0	*****	*****	4.28	0.0636	2.50	0.32
NOV 24,82	NOV 23,82	1064.0	14.5	U 4.58	4.47	0.0492	1.30	0.19
NOV 27,82	NOV 26,82	225.0	*****	U 5.62	6.00	U 0.0236	0.40	0.12
NOV 29,82	NOV 28,82	765.0	31.5	4.20	4.14	0.0998	2.75	0.36
NOV 30,82	NOV 29,82	U 16.0	*****	*****	4.59	0.0552	*****	*****
DEC 4,82	DEC 3,82	814.0	21.5	4.43	4.41	0.0574	2.10	0.32
DEC 6,82	DEC 5,82	1600.0	12.6	4.67	4.69	0.0380	1.15	0.10
DEC 9,82	DEC 8,82	99.0	*****	*****	4.41	0.0684	2.15	0.52
DEC 16,82	DEC 15,82	1158.0	13.0	4.89	4.77	0.0412	1.65	0.19
DEC 17,82	DEC 16,82	U 16.0	*****	*****	4.55	0.0595	*****	*****
DEC 19,82	DEC 18,82	U 98.0	*****	*****	4.09	0.1254	4.05	1.17
DEC 20,82	DEC 19,82	638.0	14.8	4.40	4.58	0.0486	0.70	0.37
DEC 21,82	DEC 20,82	142.0	*****	*****	4.43	0.0590	0.75	0.50
DEC 24,82	DEC 23,82	613.0	34.5	4.03	4.18	0.0970	2.90	0.45
DEC 25,82	DEC 24,82	1001.0	15.7	4.36	4.59	0.0510	1.30	0.14
DEC 26,82	DEC 25,82	691.0	13.5	4.54	4.74	0.0452	1.85	0.20
DEC 28,82	DEC 27,82	509.0	20.8	4.29	4.47	0.0622	2.05	0.22

ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : WELLESLEY/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 25,82	SEP 24,82	0.09	0.10	0.005	0.020	0.015	0.480	0.1023
SEP 26,82	SEP 25,82	0.06	0.14	0.010	0.020	0.025	0.550	0.1148
SEP 27,82	SEP 26,82	0.05	0.12	0.005	0.005	0.010	0.142	0.0447
SEP 28,82	SEP 27,82	0.04	0.08	0.005	0.045	0.090	0.368	0.0302
OCT 7,82	OCT 6,82	*****	0.39	*****	*****	*****	0.700	0.2455
OCT 8,82	OCT 7,82	0.21	0.12	0.020	0.015	0.015	0.398	0.0832
OCT 11,82	OCT 10,82	0.18	0.16	0.030	0.030	0.020	0.354	0.1096
OCT 15,82	OCT 14,82	0.50	0.10	0.125	0.060	0.010	0.470	0.0016
OCT 16,82	OCT 15,82	0.05	0.06	0.030	0.010	0.015	0.322	0.0005
OCT 21,82	OCT 20,82	0.47	0.22	0.100	0.045	0.160	0.310	0.0224
OCT 30,82	OCT 29,82	*****	0.25	*****	*****	*****	U 1.380	U 0.0001
NOV 1,82	OCT 31,82	*****	0.34	*****	*****	*****	0.360	0.0759
NOV 2,82	NOV 1,82	0.14	0.17	0.020	0.030	0.040	0.680	0.0646
NOV 3,82	NOV 2,82	0.15	0.11	0.030	0.035	0.040	0.420	0.0407
NOV 4,82	NOV 3,82	*****	0.14	*****	*****	*****	U 1.120	0.0380
NOV 5,82	NOV 4,82	0.11	0.05	0.015	0.015	0.010	0.400	0.0372
NOV 11,82	NOV 10,82	0.17	0.16	0.035	0.025	0.085	0.312	0.0589
NOV 12,82	NOV 11,82	0.13	0.07	0.010	0.020	0.050	0.206	0.0490
NOV 14,82	NOV 12,82	0.17	0.13	0.015	0.020	0.110	0.194	0.0363
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	0.0676
NOV 20,82	NOV 19,82	0.14	0.22	0.040	0.020	U 0.125	0.264	0.0813
NOV 21,82	NOV 20,82	0.02	0.11	<W 0.005	<W 0.005	0.010	0.150	0.0447
NOV 22,82	NOV 21,82	0.09	0.10	0.020	0.015	0.015	0.314	0.0525
NOV 24,82	NOV 23,82	0.03	0.06	<W 0.005	<W 0.005	<W 0.005	0.126	0.0339
NOV 27,82	NOV 26,82	0.34	0.08	U 0.900	<W 0.005	<T 0.005	0.046	U 0.0010
NOV 29,82	NOV 28,82	0.05	0.15	0.015	<W 0.005	0.010	0.162	0.0724
NOV 30,82	NOV 29,82	*****	*****	*****	*****	*****	*****	0.0257
DEC 4,82	DEC 3,82	0.15	0.23	0.040	<T 0.005	0.080	0.264	0.0389
DEC 6,82	DEC 5,82	0.03	0.10	<T 0.005	<T 0.005	0.025	0.102	0.0204
DEC 9,82	DEC 8,82	*****	0.16	*****	*****	*****	0.540	0.0389
DEC 16,82	DEC 15,82	<W 0.01	0.03	0.010	0.005	<W 0.005	0.440	0.0170
DEC 17,82	DEC 16,82	*****	*****	*****	*****	*****	*****	0.0282
DEC 19,82	DEC 18,82	*****	0.45	*****	*****	*****	0.510	0.0813
DEC 20,82	DEC 19,82	0.03	0.06	<W 0.005	0.015	0.010	0.158	0.0263
DEC 21,82	DEC 20,82	0.06	0.11	0.010	0.010	0.055	0.166	0.0372
DEC 24,82	DEC 23,82	0.06	0.17	0.015	0.020	0.055	0.292	0.0661
DEC 25,82	DEC 24,82	0.06	0.22	0.020	0.015	0.100	0.118	0.0257
DEC 26,82	DEC 25,82	0.39	0.18	0.030	0.030	0.145	0.240	0.0182
DEC 28,82	DEC 27,82	0.06	0.14	0.020	0.020	0.080	0.204	0.0339

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PART IV

CENTRAL REGION

DAILY PRECIPITATION CHEMISTRY LISTINGS

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

#06

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR. HR.	SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END	HR. HR.									
JAN 4,82	JAN 3,82	830 745	200 745	1	3.3	2	28379	2	1	93		
JAN 5,82	JAN 4,82	745 750	1800 2330	2	6.4	2	28380	2	1	74	C	
JAN 7,82	JAN 6,82	755 745	1000 1600	2	1.1	2	28381	2	1	91		
JAN 9,82	JAN 8,82	755 930	1300 2300	2	1.4	2	28382	2	1	143		
JAN 11,82	JAN 10,82	930 755	1300 500	2	2.4	2	28383	2	1	67	C M	
JAN 13,82	JAN 12,82	755 745	600 745	2	1.1	2	28384	2	1	79		
JAN 14,82	JAN 13,82	750 745	1500 2000	2	1.5	2	28385	2	1	77		
JAN 16,82	JAN 15,82	745 830	400 830	2	3.1	2	28386	2	1	****	GC N	
JAN 18,82	JAN 16,82	830 755	1030 2300	2	1.4	2	28387	2	1	84	C HZ	
JAN 24,82	JAN 22,82	750 1430	1930 1300	2	8.1	2	28388	2	1	****	GC NZ	
JAN 29,82	JAN 28,82	750 745	1000 700	2	0.4	2	28389	2	1	106		
JAN 30,82	JAN 29,82	745 930	300 930	2	5.1	2	28390	2	1	92	C	
JAN 31,82	JAN 30,82	930 845	930 1330	2	2.1	2	28391	2	1	84		
FEB 1,82	JAN 31,82	845 750	1330 500	2	18.1	2	28392	2	1	34		
FEB 4,82	FER 3,82	755 750	1030 130	2	17.4	2	28393	2	1	39		
FEB 6,82	FER 5,82	750 930	1130 2245	2	3.1	2	28394	2	1	****	G N	
FEB 8,82	FER 7,82	900 750	1000 730	2	1.1	2	28395	2	1	47	C N	
FEB 9,82	FER 8,82	750 755	615 745	2	1.2	2	28396	2	1	88		
FEB 14,82	FER 13,82	915 930	630 830	2	0.5	2	28397	2	1	109		
FEB 19,82	FEB 18,82	750 745	100 730	2	6.2	2	28398	2	1	****	G	
FEB 21,82	FEB 20,82	930 1030	1530 900	2	5.4	2	28399	2	1	****	G M	
MAR 2,82	MAR 1,82	955 745	1330 2145	2	1.3	2	28400	2	1	60		
MAR 5,82	MAR 4,82	750 745	1400 230	2	17.1	2	28401	2	1	67		
MAR 7,82	MAR 6,82	930 915	2000 300	2	0.5	2	28402	2	1	433		
MAR 9,82	MAR 8,82	730 750	200 730	2	2.5	2	28403	2	1	****	G N	
MAR 11,82	MAR 10,82	750 745	1130 630	3	2.4	2	28404	2	1	106		
MAR 12,82	MAR 11,82	745 750	830 1100	1	0.3	2	28405	2	1	30		
MAR 13,82	MAR 12,82	750 930	430 845	1	10.4	2	28406	2	1	99		
MAR 17,82	MAR 16,82	750 745	1600 2200	2	20.1	2	28407	2	1	38		
MAR 19,82	MAR 18,82	750 755	1430 700	3	1.5	2	28408	2	1	130	N	
MAR 22,82	MAR 21,82	900 750	930 2000	2	12.1	2	28409	2	1	94		
MAR 26,82	MAR 25,82	750 750	1730 755	2	14.5	2	28410	2	1	104		
MAR 31,82	MAR 30,82	750 755	2000 700	1	1.3	2	28411	2	1	201	C NJH	
APR 1,82	MAR 31,82	755 750	600 730	3	0.3	2	28412	2	1	152	C NH	
APR 4,82	APR 3,82	745 830	745 830	3	13.2	2	28413	2	1	108		
APR 11,82	APR 10,82	930 1015	200 1000	3	2.2	2	28414	2	1	149		
APR 12,82	APR 11,82	1015 930	1030 2300	3	1.3	2	28415	2	1	70		
APR 13,82	APR 12,82	930 750	1230 750	1	5.2	2	28416	2	1	116		
APR 17,82	APR 16,82	755 815	2100 815	1	3.2	2	28417	2	1	122	C N	
APR 18,82	APR 17,82	815 930	815 1700	1	3.1	2	28418	2	1	151	N	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

#06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 4,82	JAN 3,82	505.0	38.0	4.12	4.05	0.1256	2.75	0.62
JAN 5,82	JAN 4,82	785.0	16.5	4.56	4.51	0.0652	1.15	0.28
JAN 7,82	JAN 6,82	165.0	*****	*****	4.04	*****	3.75	1.18
JAN 9,82	JAN 8,82	330.0	15.9	*****	4.51	0.0624	0.60	0.52
JAN 11,82	JAN 10,82	265.0	U 17.4	*****	U 6.77	U 0.0370	U 1.20	U 0.20
JAN 13,82	JAN 12,82	144.0	27.5	*****	4.16	*****	0.40	0.72
JAN 14,82	JAN 13,82	190.0	*****	*****	4.27	*****	0.50	0.39
JAN 16,82	JAN 15,82	U 195.0	*****	*****	3.89	*****	1.35	1.21
JAN 18,82	JAN 16,82	195.0	23.0	*****	4.38	*****	0.90	0.41
JAN 24,82	JAN 22,82	U 360.0	11.2	4.63	4.62	0.0554	0.55	0.25
JAN 29,82	JAN 28,82	70.0	*****	*****	4.14	*****	5.00	1.75
JAN 30,82	JAN 29,82	775.0	21.3	4.44	4.34	0.0770	0.60	0.63
JAN 31,82	JAN 30,82	290.0	31.4	*****	4.11	0.1060	1.60	0.50
FEB 1,82	JAN 31,82	U 1025.0	14.9	4.52	4.41	0.0592	0.60	0.25
FEB 4,82	FEB 3,82	U 1130.0	15.6	4.49	4.40	0.0716	0.60	0.29
FEB 6,82	FEB 5,82	765.0	20.1	4.36	4.28	0.0816	0.40	0.52
FEB 8,82	FEB 7,82	U 85.0	*****	*****	4.02	*****	U 1.80	1.55
FEB 9,82	FEB 8,82	175.0	*****	*****	4.06	*****	0.50	1.07
FEB 14,82	FEB 13,82	90.0	*****	*****	U 3.86	*****	U 4.00	U 1.76
FEB 19,82	FEB 18,82	715.0	U 13.4	U 4.56	U 4.52	U 0.0644	U 0.70	U 0.30
FEB 21,82	FEB 20,82	640.0	20.8	4.32	4.21	0.0868	1.10	0.41
MAR 2,82	MAR 1,82	130.0	40.2	*****	4.03	*****	0.55	1.21
MAR 5,82	MAR 4,82	1895.0	34.8	4.18	4.11	0.1136	2.00	0.67
MAR 7,82	MAR 6,82	355.0	37.8	4.11	4.05	0.1214	0.85	1.00
MAR 9,82	MAR 8,82	U 30.0	*****	*****	4.12	*****	0.65	0.90
MAR 11,82	MAR 10,82	420.0	150.0	3.50	3.52	0.4084	10.10	2.73
MAR 12,82	MAR 11,82	U 15.0	*****	*****	*****	*****	*****	*****
MAR 13,82	MAR 12,82	1700.0	58.0	3.89	3.94	0.1554	4.90	0.71
MAR 17,82	MAR 16,82	U 1255.0	14.9	4.58	4.65	0.0456	1.15	0.40
MAR 19,82	MAR 18,82	320.0	141.0	*****	3.52	0.4048	9.85	2.32
MAR 22,82	MAR 21,82	1870.0	34.8	4.12	4.16	0.1150	2.65	0.63
MAR 26,82	MAR 25,82	2495.0	10.9	4.67	4.72	0.0480	0.60	0.29
MAR 31,82	MAR 30,82	430.0	30.6	U 4.59	U 5.02	0.0448	4.75	1.12
APR 1,82	MAR 31,82	75.0	*****	*****	U 5.02	0.0378	3.65	0.65
APR 4,82	APR 3,82	2355.0	10.6	4.88	5.06	0.0298	1.55	0.15
APR 11,82	APR 10,82	540.0	54.0	4.02	4.07	0.1292	5.20	1.08
APR 12,82	APR 11,82	150.0	64.2	3.87	3.95	0.1602	5.90	1.18
APR 13,82	APR 12,82	995.0	52.0	3.93	4.08	0.1482	U 7.10	U 1.53
APR 17,82	APR 16,82	645.0	77.0	3.79	3.88	0.1816	7.80	1.76
APR 18,82	APR 17,82	770.0	53.0	3.97	4.11	0.1260	6.70	0.72

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N	FREE H+
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	LAB MG/L
JAN 4+82	JAN 3,82	0.09	0.09	0.015	0.010	0.080	0.246	0.0891
JAN 5+82	JAN 4,82	0.32	<T	0.01	0.025	0.030	0.064	0.0309
JAN 7+82	JAN 6,82	0.82	0.38	0.070	0.180	0.180	0.500	0.0912
JAN 9+82	JAN 8,82	0.43	0.14	0.025	0.020	0.080	0.024	0.0309
JAN 11+82	JAN 10,82	U 2.10	U 1.50	U 0.290	0.100	U 0.850	0.024	U 0.0002
JAN 13+82	JAN 12,82	*****	U 1.12	*****	*****	*****	0.004	0.0692
JAN 14+82	JAN 13,82	0.06	0.32	0.010	0.020	0.040	0.022	0.0537
JAN 16+82	JAN 15,82	0.27	0.50	0.015	0.020	0.110	0.104	0.1288
JAN 18+82	JAN 16,82	0.59	0.57	0.075	0.040	0.150	0.062	0.0417
JAN 24+82	JAN 22,82	0.13	0.17	0.015	0.015	0.030	0.092	0.0240
JAN 29+82	JAN 28,82	*****	U 1.00	*****	*****	*****	*****	0.0724
JAN 30+82	JAN 29,82	0.40	0.28	0.020	0.020	0.160	0.070	0.0457
JAN 31+82	JAN 30,82	0.06	0.22	<T 0.005	0.010	0.035	0.092	0.0776
FEB 1+82	JAN 31,82	0.02	U 0.18	<T 0.005	0.005	0.005	0.030	0.0389
FEB 4+82	FEB 3,82	0.02	0.14	<T 0.005	0.005	0.015	0.048	0.0398
FEB 6+82	FEB 5,82	0.02	0.10	<T 0.005	0.005	0.020	0.012	0.0525
FEB 8+82	FEB 7,82	0.02	U 0.52	*****	0.040	0.330	U 0.236	0.0955
FEB 9+82	FEB 8,82	0.26	0.38	0.130	0.010	0.155	0.022	0.0871
FEB 14+82	FEB 13,82	U 1.59	U 1.41	U 0.150	0.040	U 1.000	U 0.298	U 0.1380
FEB 19+82	FEB 18,82	0.10	0.08	0.005	<T 0.005	0.040	0.108	U 0.0302
FEB 21+82	FEB 20,82	0.04	0.14	<T 0.005	<T 0.005	0.015	0.218	0.0617
MAR 2+82	MAR 1,82	0.17	0.46	0.035	<T 0.005	0.215	0.024	0.0933
MAR 5+82	MAR 4,82	0.16	0.08	0.010	0.025	0.035	0.268	0.0776
MAR 7+82	MAR 6,82	0.17	0.34	0.015	0.010	0.155	0.050	0.0891
MAR 9+82	MAR 8,82	*****	0.45	*****	*****	*****	*****	0.0759
MAR 11+82	MAR 10,82	0.65	0.90	0.075	0.045	0.300	1.350	0.3020
MAR 12+82	MAR 11,82	*****	*****	*****	*****	*****	*****	*****
MAR 13+82	MAR 12,82	0.23	0.34	0.035	0.020	0.200	0.510	0.1148
MAR 17+82	MAR 16,82	0.42	0.06	0.045	0.020	0.045	0.138	0.0224
MAR 19+82	MAR 18,82	0.73	0.41	0.040	0.020	0.095	0.550	0.3020
MAR 22+82	MAR 21,82	0.40	0.08	0.030	0.015	0.040	0.278	0.0692
MAR 26+82	MAR 25,82	0.22	0.02	0.025	<W 0.005	0.025	0.058	0.0191
MAR 31+82	MAR 30,82	U 2.67	U 0.74	U 0.280	0.065	U 0.460	0.350	U 0.0095
APR 1+82	MAR 31,82	U 1.48	0.29	U 0.165	0.065	0.120	0.600	U 0.0095
APR 4+82	APR 3,82	0.44	0.03	0.060	0.045	0.025	0.142	0.0087
APR 11+82	APR 10,82	0.79	0.25	0.080	0.025	0.110	0.770	0.0851
APR 12+82	APR 11,82	*****	0.21	*****	*****	*****	*****	0.1122
APR 13+82	APR 12,82	U 1.48	0.38	U 0.175	0.080	0.090	U 1.290	0.0832
APR 17+82	APR 16,82	U 1.75	U 0.57	U 0.190	0.055	0.190	0.810	0.1318
APR 18+82	APR 17,82	0.64	0.38	0.150	0.100	0.225	0.820	0.0776

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN	02-STD.
APR 20,82	APR 19,82	750 755	2330 755	1	4.2	2	28419	2	1	110	A	
APR 21,82	APR 20,82	755 750	755 1930	1	9.4	2	28420	2	1	111		
APR 27,82	APR 26,82	750 855	1300 700	1	1.4	2	28421	2	1	117	BCA HM	

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
APR 20,82	APR 19,82	760.0	U 51.5	U 4.04	4.17	0.1026	5.10	U 1.54
APR 21,82	APR 20,82	1715.0	35.6	4.10	4.18	0.0974	3.65	0.41
APR 27,82	APR 26,82	270.0	78.0	U 7.09	U 7.30	U 0.0380	U 10.40	U 1.89

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		FREE H+ LAB		
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
APR 20+82	APR 19,82	U	1.35		0.27		U	0.195		0.030		0.075		0.940		0.0676
APR 21+82	APR 20,82		0.16		0.10			0.020		0.020		0.025		0.390		0.0661
APR 27+82	APR 26,82	U	6.70	U	0.80	U	1.100	U	0.635	U	0.285	U	3.700	U	0.0001	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS		
											FIELD	OFFICE	
											04-ON HYDRO		
MAY 6,82	MAY 5,82	750	745	**** ****	1	2.0	1	28422	2	1	70	C	
MAY 8,82	MAY 7,82	****	755	1300 755	1	6.3	1	28423	2	1	92	C	H
MAY 9,82	MAY 8,82	755	950	755 1430	1	2.2	1	28424	2	1	49	N	
MAY 20,82	MAY 19,82	800	750	830 1630	1	5.4	1	28425	2	1	101	JH	
MAY 23,82	MAY 22,82	900	945	1900 945	1	4.2	1	28426	2	1	96		
MAY 24,82	MAY 23,82	900	845	945 850	1	4.4	1	28427	2	1	97		
MAY 28,82	MAY 27,82	800	755	200 630	1	2.4	1	28428	2	1	117		
MAY 29,82	MAY 28,82	755	845	830 715	1	8.2	1	28429	2	1	97		
MAY 31,82	MAY 30,82	800	750	830 615	1	5.2	1	28430	2	1	84		Y
JUN 2,82	JUN 1,82	800	710	830 1600	1	10.3	1	28431	2	1	93		
JUN 6,82	JUN 5,82	900	845	1500 815	*	8.1	1	28432	2	1	83		
JUN 7,82	JUN 6,82	845	755	910 730	1	1.2	1	28433	2	1	19	C	N
JUN 11,82	JUN 10,82	800	750	1430 200	1	19.4	1	28434	2	1	95		
JUN 14,82	JUN 13,82	800	750	1300 2030	1	2.0	1	28435	2	1	85		
JUN 15,82	JUN 14,82	750	750	400 700	1	2.5	1	28436	2	1	40		N
JUN 16,82	JUN 15,82	750	750	1400 2300	1	25.0	1	28437	2	1	128		
JUN 18,82	JUN 17,82	750	****	400 500	*	0.4	1	28438	2	1	39		N
JUN 19,82	JUN 18,82	750	815	2100 815	1	7.0	1	28439	2	1	96		
JUN 20,82	JUN 19,82	815	830	815 1619	1	8.1	1	28440	2	1	99		
JUN 21,82	JUN 20,82	830	900	1600 100	1	8.2	1	28441	2	1	256		N
JUN 23,82	JUN 22,82	700	650	830 1930	1	5.3	1	28442	2	1	98		
JUN 25,82	JUN 24,82	800	755	**** ****	1	0.4	1	28443	2	1	77		
JUL 12,82	JUL 11,82	700	750	815 855	*	1.0	1	28444	2	1	23		N
JUL 18,82	JUL 17,82	800	815	315 530	1	7.0	1	28445	2	1	27		N
JUL 19,82	JUL 18,82	800	755	1600 2100	1	7.0	1	28446	2	1	90		
JUL 26,82	JUL 25,82	800	750	900 1000	1	1.0	1	28447	2	1	70	C	
JUL 28,82	JUL 27,82	800	750	1900 730	1	17.1	1	28448	2	1	96		
JUL 29,82	JUL 28,82	750	845	1030 1300	1	4.3	1	28449	2	1	92		HM
JUL 31,82	JUL 30,82	800	755	2030 500	1	7.4	1	28450	2	1	99		
AUG 4,82	AUG 3,82	800	800	**** ****	1	5.4	1	28451	2	1	96	C	JHC
AUG 10,82	AUG 9,82	800	800	**** ****	1	4.1	1	28452	2	1	76	B	
AUG 20,82	AUG 19,82	800	750	1400 500	1	16.2	1	28453	2	1	95		
AUG 21,82	AUG 20,82	750	815	700 800	1	0.4	1	28454	2	1	136	C	N
AUG 22,82	AUG 21,82	815	1015	1000 1400	1	1.0	1	28455	2	1	70		
AUG 23,82	AUG 22,82	1015	755	**** ****	1	19.1	1	28456	2	1	101		
AUG 25,82	AUG 24,82	800	800	200 730	1	19.3	1	28457	2	1	86		
AUG 26,82	AUG 25,82	730	745	730 1030	1	6.1	1	28458	2	1	88	B	
AUG 28,82	AUG 27,82	800	910	930 1400	1	2.2	1	28459	2	1	88		
AUG 29,82	AUG 28,82	910	1400	1100 1400	1	2.3	1	28460	2	1	81		HM
SEP 2,82	SEP 1,82	800	750	1945 2345	1	7.2	1	28461	2	1	61	A	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM #06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 6.82	MAY 5.82	90.0	*****	*****	3.87	0.1956	11.85	1.84
MAY 8.82	MAY 7.82	375.0	13.4	4.99	5.22	0.0346	2.35	0.36
MAY 9.82	MAY 8.82	U 70.0	*****	*****	5.16	0.0300	0.45	0.15
MAY 20.82	MAY 19.82	350.0	32.5	4.26	4.65	0.0508	3.75	0.80
MAY 23.82	MAY 22.82	260.0	16.3	4.32	4.44	0.0440	1.50	0.25
MAY 24.82	MAY 23.82	275.0	48.4	3.90	4.05	0.1290	4.90	0.60
MAY 28.82	MAY 27.82	180.0	*****	3.81	3.87	0.1756	5.45	0.81
MAY 29.82	MAY 28.82	510.0	33.4	4.07	4.23	0.0972	3.30	0.32
MAY 31.82	MAY 30.82	280.0	97.8	3.67	3.71	0.2520	8.90	1.19
JUN 2.82	JUN 1.82	620.0	66.8	3.81	3.89	0.1766	5.55	0.79
JUN 6.82	JUN 5.82	435.0	12.9	*****	4.60	0.0364	0.80	0.20
JUN 7.82	JUN 6.82	U 15.0	*****	*****	4.38	0.0558	*****	*****
JUN 11.82	JUN 10.82	1185.0	80.0	3.75	3.74	0.2120	8.40	0.59
JUN 14.82	JUN 13.82	110.0	62.1	*****	3.99	0.1306	6.85	1.45
JUN 15.82	JUN 14.82	U 65.0	*****	*****	4.13	0.1078	8.25	1.91
JUN 16.82	JUN 15.82	2065.0	47.7	3.93	3.96	0.1280	4.30	0.53
JUN 18.82	JUN 17.82	U 10.0	*****	0.00	*****	*****	*****	*****
JUN 19.82	JUN 18.82	435.0	26.2	4.23	4.33	0.0674	2.50	0.57
JUN 20.82	JUN 19.82	515.0	47.5	3.94	3.96	0.1234	3.90	0.69
JUN 21.82	JUN 20.82	1350.0	26.3	4.23	4.29	0.0668	2.50	0.51
JUN 23.82	JUN 22.82	335.0	9.8	*****	4.82	0.0304	0.85	0.21
JUN 25.82	JUN 24.82	20.0	*****	*****	4.22	0.0800	*****	*****
JUL 12.82	JUL 11.82	U 15.0	*****	*****	U 7.78	0.0998	*****	*****
JUL 18.82	JUL 17.82	U 125.0	*****	*****	4.44	0.0558	U 1.45	0.27
JUL 19.82	JUL 18.82	405.0	22.3	4.20	4.37	0.0600	2.25	0.43
JUL 26.82	JUL 25.82	45.0	*****	*****	4.50	0.0596	*****	*****
JUL 28.82	JUL 27.82	1055.0	9.8	4.64	4.70	0.0320	0.65	0.15
JUL 29.82	JUL 28.82	255.0	4.1	4.97	5.08	0.0222	0.05	0.04
JUL 31.82	JUL 30.82	470.0	64.0	3.86	3.80	0.1596	5.35	1.06
AUG 4.82	AUG 3.82	335.0	8.2	U 4.81	U 5.39	U 0.0230	0.65	0.18
AUG 10.82	AUG 9.82	200.0	65.0	3.80	3.81	0.1646	7.35	0.73
AUG 20.82	AUG 19.82	990.0	19.5	4.53	4.71	0.0430	3.55	0.41
AUG 21.82	AUG 20.82	35.0	*****	*****	U 6.45	U 0.0224	2.50	0.11
AUG 22.82	AUG 21.82	45.0	*****	*****	4.88	0.0418	6.30	0.44
AUG 23.82	AUG 22.82	1240.0	30.0	4.11	4.16	0.0958	2.85	0.40
AUG 25.82	AUG 24.82	1070.0	16.6	4.33	4.46	0.0606	1.45	0.20
AUG 26.82	AUG 25.82	345.0	5.2	4.81	U 5.05	0.0360	0.45	0.06
AUG 28.82	AUG 27.82	125.0	28.0	*****	4.22	0.0924	3.50	0.59
AUG 29.82	AUG 28.82	120.0	*****	*****	5.54	0.0278	0.20	0.04
SEP 2.82	SEP 1.82	285.0	157.0	3.44	3.39	0.4300	15.00	0.26

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 6,82	MAY 5,82	*****	0.44	*****	*****	*****	*****	0.1349
MAY 8,82	MAY 7,82	0.70	0.11	0.160	0.030	0.035	0.238	U 0.0060
MAY 9,82	MAY 8,82	*****	0.02	*****	*****	*****	*****	0.0069
MAY 20,82	MAY 19,82	0.70	0.10	0.125	0.080	0.025	0.690	0.0224
MAY 23,82	MAY 22,82	0.20	<W 0.01	0.025	0.020	<T 0.010	0.128	0.0363
MAY 24,82	MAY 23,82	0.27	0.02	0.010	0.025	<T 0.010	0.410	0.0891
MAY 28,82	MAY 27,82	0.15	0.08	0.015	0.025	0.015	0.352	0.1349
MAY 29,82	MAY 28,82	0.03	<W 0.01	<W 0.005	<T 0.010	<T 0.005	0.262	0.0589
MAY 31,82	MAY 30,82	0.22	0.20	0.020	0.060	0.025	0.750	0.1950
JUN 2,82	JUN 1,82	0.08	0.15	0.005	0.020	0.015	0.352	0.1288
JUN 6,82	JUN 5,82	0.11	0.04	0.010	0.020	<T 0.010	0.072	0.0251
JUN 7,82	JUN 6,82	*****	*****	*****	*****	*****	*****	0.0417
JUN 11,82	JUN 10,82	0.12	0.06	0.015	0.050	0.025	0.480	0.1820
JUN 14,82	JUN 13,82	*****	0.33	*****	*****	*****	*****	0.1023
JUN 15,82	JUN 14,82	*****	0.49	*****	*****	*****	*****	0.0741
JUN 16,82	JUN 15,82	0.09	0.12	0.015	0.040	<T 0.010	0.278	0.1096
JUN 18,82	JUN 17,82	*****	*****	*****	*****	*****	*****	*****
JUN 19,82	JUN 18,82	0.28	0.05	0.020	0.030	0.020	0.490	0.0468
JUN 20,82	JUN 19,82	0.13	0.11	0.015	<T 0.010	0.015	0.264	0.1096
JUN 21,82	JUN 20,82	0.16	0.04	0.025	<T 0.015	<T 0.010	0.480	0.0513
JUN 23,82	JUN 22,82	0.18	0.03	0.015	0.020	0.015	0.136	0.0151
JUN 25,82	JUN 24,82	*****	*****	*****	*****	*****	*****	0.0603
JUL 12,82	JUL 11,82	*****	*****	*****	*****	*****	*****	U 0.0000
JUL 18,82	JUL 17,82	0.11	0.06	0.015	<T 0.015	0.020	U 0.120	0.0363
JUL 19,82	JUL 18,82	0.21	0.10	0.025	0.030	0.040	0.366	0.0427
JUL 26,82	JUL 25,82	*****	*****	*****	*****	*****	*****	0.0316
JUL 28,82	JUL 27,82	0.05	<T 0.02	<W 0.005	<T 0.005	<T 0.010	0.114	0.0200
JUL 29,82	JUL 28,82	0.03	<T 0.02	0.010	0.025	0.035	0.060	0.0083
JUL 31,82	JUL 30,82	0.53	0.29	0.120	0.050	0.020	0.312	0.1585
AUG 4,82	AUG 3,82	0.21	0.04	0.055	0.045	0.015	0.250	U 0.0041
AUG 10,82	AUG 9,82	0.33	0.14	0.055	0.050	0.055	0.770	0.1549
AUG 20,82	AUG 19,82	0.61	0.06	0.100	0.030	<T 0.010	0.740	0.0195
AUG 21,82	AUG 20,82	*****	0.32	*****	*****	*****	*****	U 0.0004
AUG 22,82	AUG 21,82	*****	0.31	*****	*****	*****	*****	0.0132
AUG 23,82	AUG 22,82	0.10	0.06	0.020	<T 0.010	<W 0.005	0.238	0.0692
AUG 25,82	AUG 24,82	0.05	0.08	0.015	<T 0.010	<T 0.010	0.148	0.0347
AUG 26,82	AUG 25,82	0.05	0.06	0.015	<T 0.010	<T 0.005	0.100	U 0.0089
AUG 28,82	AUG 27,82	0.26	0.12	0.050	0.030	0.025	0.670	0.0603
AUG 29,82	AUG 28,82	0.11	0.07	0.025	<T 0.005	0.015	0.078	0.0029
SEP 2,82	SEP 1,82	0.31	0.32	0.050	0.090	0.090	0.134	0.4074

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER	COMMENTS
								02-APIOS	01-MOE	EFFICI- ENCY (%)	FIELD OFFICE
								03-SPECIAL	03-AES	04-ON HYDRO	
SEP 3,82	SEP 2,82	750 745	515 1600	*	3.4	1	28462	2	1	110	
SEP 4,82	SEP 3,82	745 805	1000 400	1	2.0	1	28463	2	1	74	C
SEP 6,82	SEP 5,82	800 1015	215 1015	1	4.2	1	28464	2	1	154	N
SEP 13,82	SEP 12,82	800 755	1830 1930	1	3.5	1	28465	2	1	98	FJ
SEP 15,82	SEP 14,82	755 750	800 745	1	5.2	1	28466	2	1	97	AFJ
SEP 16,82	SEP 15,82	750 750	200 700	1	1.1	1	28467	2	1	92	FJ
SEP 18,82	SEP 17,82	750 930	2300 600	1	23.1	1	28468	2	1	106	FJ
SEP 21,82	SEP 20,82	800 755	1100 200	1	5.1	1	28469	2	1	96	FJ
SEP 22,82	SEP 21,82	755 750	500 700	1	0.4	1	28470	2	1	117	FJ
SEP 23,82	SEP 22,82	755 750	400 750	1	2.2	1	28471	2	1	99	FJ
SEP 24,82	SEP 23,82	750 750	900 1100	1	0.2	1	28472	2	1	7	EFJ
SEP 25,82	SEP 24,82	750 930	430 700	1	9.1	1	28473	2	1	94	
SEP 26,82	SEP 25,82	930 745	200 745	1	4.2	1	28474	2	1	102	
SEP 28,82	SEP 27,82	745 750	745 1900	1	5.2	1	28475	2	1	78	
OCT 2,82	OCT 1,82	815 815	1000 1200	1	1.1	1	28476	2	1	****	G
OCT 8,82	OCT 7,82	750 750	**** ****	1	8.2	1	28477	2	1	90	
OCT 9,82	OCT 8,82	750 845	1600 2000	1	3.0	1	28478	2	1	80	H
OCT 11,82	OCT 10,82	945 945	400 745	1	6.3	1	28479	2	1	102	
OCT 12,82	OCT 11,82	945 745	1100 700	1	3.2	1	28480	2	1	99	
OCT 14,82	OCT 13,82	750 750	**** ****	1	1.0	1	28481	2	1	****	GE
OCT 15,82	OCT 14,82	750 750	2200 200	1	14.2	1	28482	2	1	49	H
OCT 16,82	OCT 15,82	750 930	**** ****	1	2.0	1	28483	2	1	58	
OCT 17,82	OCT 16,82	930 930	**** ****	3	2.0	1	28484	2	1	35	
OCT 21,82	OCT 20,82	745 745	**** ****	1	14.1	1	28485	2	1	74	
NOV 1,82	OCT 31,82	800 800	1600 2200	1	2.1	1	28486	2	1	104	
NOV 2,82	NOV 1,82	800 830	1300 830	1	13.3	1	28487	2	1	103	C
NOV 3,82	NOV 2,82	830 830	200 700	1	15.2	1	28488	2	1	95	
NOV 4,82	NOV 3,82	830 830	1700 830	1	16.2	2	28489	2	1	100	
NOV 5,82	NOV 4,82	830 830	930 300	1	9.2	2	28490	2	1	61	
NOV 6,82	NOV 5,82	830 830	1815 100	2	2.3	2	28491	2	1	****	G
NOV 11,82	NOV 10,82	930 930	2200 100	1	0.3	2	28492	2	1	312	N
NOV 12,82	NOV 11,82	930 750	1700 600	2	8.4	2	28493	2	1	100	
NOV 13,82	NOV 12,82	750 830	1100 1600	1	4.3	2	28494	2	1	154	
NOV 15,82	NOV 14,82	750 750	1900 300	2	2.5	2	28495	2	1	****	EK
NOV 21,82	NOV 20,82	800 1130	840 1030	1	17.3	2	28496	2	1	94	
NOV 22,82	NOV 21,82	1130 750	1500 2100	1	0.4	2	28497	2	1	117	
NOV 24,82	NOV 23,82	750 750	**** ****	3	19.3	2	28498	2	1	25	
NOV 27,82	NOV 26,82	800 800	**** ****	2	1.3	2	28499	2	1	****	EK
NOV 29,82	NOV 28,82	750 750	1630 750	1	18.2	2	28500	2	1	102	
NOV 30,82	NOV 29,82	750 750	750 750	1	2.2	2	28501	2	1	177	N

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH3.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 3,82	SEP 2,82	240.0	13.2	*****	5.21	0.0444	2.15	0.31
SEP 4,82	SEP 3,82	95.0	4.6	*****	5.71	0.0412	0.65	0.05
SEP 6,82	SEP 5,82	415.0	35.0	4.14	4.13	0.1032	3.85	0.73
SEP 13,82	SEP 12,82	220.0	42.5	4.00	4.04	0.1350	5.35	0.72
SEP 15,82	SEP 14,82	325.0	29.0	4.12	4.17	0.0958	3.10	0.38
SEP 16,82	SEP 15,82	65.0	*****	*****	4.05	0.1246	3.55	0.74
SEP 18,82	SEP 17,82	1575.0	20.0	4.38	4.27	0.0634	1.80	0.28
SEP 21,82	SEP 20,82	315.0	27.8	4.26	4.40	0.0726	3.80	0.74
SEP 22,82	SEP 21,82	30.0	*****	*****	3.93	0.1248	4.00	1.02
SEP 23,82	SEP 22,82	140.0	21.5	*****	4.28	0.0692	1.70	0.38
SEP 24,82	SEP 23,82	U 1.0	*****	*****	*****	*****	*****	*****
SEP 25,82	SEP 24,82	550.0	44.5	3.93	3.93	0.1256	3.80	0.66
SEP 26,82	SEP 25,82	275.0	7.8	4.61	4.74	0.0488	0.40	0.11
SEP 28,82	SEP 27,82	260.0	7.5	4.52	4.83	0.0318	0.60	0.12
OCT 2,82	OCT 1,82	59.0	*****	*****	*****	*****	*****	*****
OCT 8,82	OCT 7,82	475.0	83.0	3.81	3.71	0.2260	8.40	0.93
OCT 9,82	OCT 8,82	155.0	*****	*****	U 6.05	U 0.0452	U 5.95	U 1.63
OCT 11,82	OCT 10,82	415.0	32.6	4.18	4.04	0.0986	3.05	0.36
OCT 12,82	OCT 11,82	205.0	*****	3.77	3.63	0.2360	6.85	1.94
OCT 14,82	OCT 13,82	35.0	*****	*****	*****	*****	*****	*****
OCT 15,82	OCT 14,82	U 450.0	10.2	4.69	4.77	0.0388	1.00	0.21
OCT 16,82	OCT 15,82	75.0	*****	*****	U 5.55	0.0224	0.40	0.03
OCT 17,82	OCT 16,82	U 45.0	*****	*****	5.40	0.0264	0.25	0.03
OCT 21,82	OCT 20,82	670.0	21.6	4.23	4.31	0.0678	2.40	0.28
NOV 1,82	OCT 31,82	140.0	*****	*****	4.30	0.0638	3.35	0.57
NOV 2,82	NOV 1,82	880.0	49.4	*****	4.39	0.0564	1.30	0.23
NOV 3,82	NOV 2,82	935.0	26.5	*****	4.15	0.0832	1.95	0.50
NOV 4,82	NOV 3,82	1040.0	*****	4.85	5.01	0.0214	0.30	0.09
NOV 5,82	NOV 4,82	365.0	15.9	4.43	4.43	0.0524	1.05	0.30
NOV 6,82	NOV 5,82	355.0	10.6	4.61	4.76	0.0354	1.00	0.21
NOV 11,82	NOV 10,82	60.0	*****	*****	3.73	0.2260	7.20	U 2.48
NOV 12,82	NOV 11,82	540.0	38.0	4.11	4.17	0.1076	3.20	0.62
NOV 13,82	NOV 12,82	425.0	20.0	4.42	4.42	0.0690	2.10	0.30
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 21,82	NOV 20,82	1050.0	28.0	4.18	4.22	0.0878	2.45	0.38
NOV 22,82	NOV 21,82	30.0	*****	*****	4.08	0.1154	5.50	0.40
NOV 24,82	NOV 23,82	U 315.0	10.0	4.59	4.62	0.0466	0.55	0.17
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	1195.0	22.0	4.32	4.26	0.0878	2.05	0.36
NOV 30,82	NOV 29,82	250.0	*****	4.36	4.34	0.0672	1.35	0.25

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLDRIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 3,82	SEP 2,82	0.38	0.14	0.030	0.015	0.020	0.650	0.0062
SEP 4,82	SEP 3,82	0.18	0.07	0.025	0.030	0.065	*****	0.0019
SEP 6,82	SEP 5,82	0.56	0.14	0.075	0.030	0.025	0.630	0.0741
SEP 13,82	SEP 12,82	0.80	0.28	0.080	0.085	0.090	0.720	0.0912
SEP 15,82	SEP 14,82	0.13	0.19	0.025	0.070	0.080	0.430	0.0676
SEP 16,82	SEP 15,82	*****	0.20	*****	*****	*****	*****	0.0891
SEP 18,82	SEP 17,82	0.05	0.12	0.010	<W 0.005	0.005	0.222	0.0537
SEP 21,82	SEP 20,82	0.55	0.28	0.085	0.070	0.050	U 1.100	0.0398
SEP 22,82	SEP 21,82	*****	0.31	*****	*****	*****	*****	0.1175
SEP 23,82	SEP 22,82	0.18	0.14	0.025	0.030	0.040	0.114	0.0525
SEP 24,82	SEP 23,82	*****	*****	*****	*****	*****	*****	*****
SEP 25,82	SEP 24,82	0.06	0.11	0.005	0.015	0.010	0.460	0.1175
SEP 26,82	SEP 25,82	0.04	0.11	<W 0.005	0.020	0.015	0.030	0.0182
SEP 28,82	SEP 27,82	0.04	0.07	0.005	0.005	0.005	0.200	0.0148
OCT 2,82	OCT 1,82	*****	*****	*****	*****	*****	*****	*****
OCT 8,82	OCT 7,82	0.33	0.26	0.030	0.040	0.070	0.890	0.1950
OCT 9,82	OCT 8,82	U 2.00	U 0.46	U 0.315	U 0.200	U 0.100	U 1.670	U 0.0009
OCT 11,82	OCT 10,82	0.11	0.14	0.005	0.010	0.040	0.252	0.0912
OCT 12,82	OCT 11,82	0.26	0.33	0.030	0.040	0.050	1.350	0.2344
OCT 14,82	OCT 13,82	*****	*****	*****	*****	*****	*****	*****
OCT 15,82	OCT 14,82	0.10	<W 0.01	0.020	0.030	0.020	U 0.242	0.0170
OCT 16,82	OCT 15,82	*****	0.04	*****	*****	*****	0.058	U 0.0028
OCT 17,82	OCT 16,82	*****	0.26	*****	*****	*****	*****	0.0040
OCT 21,82	OCT 20,82	0.27	0.20	0.060	0.040	0.150	0.220	0.0490
NOV 1,82	OCT 31,82	0.86	0.14	0.210	0.045	0.080	0.198	0.0501
NOV 2,82	NOV 1,82	0.14	<W 0.01	0.015	0.010	0.015	0.108	0.0407
NOV 3,82	NOV 2,82	0.08	0.09	0.020	0.015	0.030	0.264	0.0708
NOV 4,82	NOV 3,82	0.05	0.07	<W 0.005	0.015	0.070	0.060	0.0098
NOV 5,82	NOV 4,82	0.07	0.08	0.005	<W 0.005	0.040	0.220	0.0372
NOV 6,82	NOV 5,82	0.06	0.05	0.005	<W 0.005	0.040	0.220	0.0174
NOV 11,82	NOV 10,82	*****	U 1.13	*****	*****	*****	*****	0.1862
NOV 12,82	NOV 11,82	0.16	0.25	0.020	0.015	0.115	0.334	0.0676
NOV 13,82	NOV 12,82	0.19	0.28	0.040	0.020	0.150	0.232	0.0380
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 21,82	NOV 20,82	0.03	0.13	<W 0.005	<W 0.005	0.035	0.164	0.0603
NOV 22,82	NOV 21,82	*****	*****	*****	*****	*****	*****	0.0832
NOV 24,82	NOV 23,82	0.01	0.07	0.005	<W 0.005	<W 0.005	0.022	0.0240
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	0.33	0.10	0.010	0.020	0.010	0.088	0.0550
NOV 30,82	NOV 29,82	0.05	0.09	0.005	0.015	0.020	0.076	0.0457

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END	HR. HR.									
		01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER									
DEC 1,82	NOV 30,82	750 750	2300 700	1	0.3	2	28502	2	1	208	N	
DEC 3,82	DEC 2,82	755 755	1600 200	1	31.1	2	28503	2	1	75		
DEC 4,82	DEC 3,82	755 915	930 2330	1	9.4	2	28504	2	1	103		
DEC 5,82	DEC 4,82	915 1100	400 1000	1	2.3	2	28505	2	1	91		
DEC 6,82	DEC 5,82	1100 845	1100 745	1	12.1	2	28506	2	1	108		
DEC 9,82	DEC 8,82	830 830	1500 2200	2	3.5	2	28507	2	1	24		
DEC 11,82	DEC 10,82	945 945	100 200	*	1.1	2	28508	2	1	**** EK	N	
DEC 16,82	DEC 15,82	800 1700	1600 1500	3	17.1	2	28509	2	1	120	N	
DEC 19,82	DEC 18,82	800 1100	100 900	2	2.5	2	28510	2	1	40	N	
DEC 20,82	DEC 19,82	830 1100	200 700	2	5.3	2	28511	2	1	**** KE		
DEC 21,82	DEC 20,82	830 755	1000 700	1	****	2	28512	2	1	****		
DEC 24,82	DEC 23,82	755 755	1700 600	1	10.2	2	28513	2	1	81		
DEC 25,82	DEC 24,82	755 930	1600 900	1	12.2	2	28514	2	1	93		
DEC 26,82	DEC 25,82	930 1015	1400 2100	1	1.5	2	28515	2	1	179		
DEC 28,82	DEC 27,82	915 915	2200 915	1	3.2	2	28516	2	1	95		
DEC 30,82	DEC 29,82	**** ****	**** ****	*	3.1	2	28517	2	1	**** EK		
JAN 1,83	DEC 31,82	1030 1030	1600 200	*	3.1	2	28518	2	1	**** EK		

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
DEC 1,82	NOV 30,82	40.0	*****	*****	3.62	0.2820	7.65	> 2.00
DEC 3,82	DEC 2,82	1510.0	20.5	4.35	4.34	0.0748	1.90	0.17
DEC 4,82	DEC 3,82	625.0	17.5	4.39	4.37	0.0694	1.10	0.30
DEC 5,82	DEC 4,82	135.0	*****	*****	3.90	U 0.1326	U 3.05	U 0.56
DEC 6,82	DEC 5,82	845.0	15.5	4.48	4.43	0.0606	1.20	0.18
DEC 9,82	DEC 8,82	U 55.0	*****	*****	4.64	0.0490	2.00	0.44
DEC 11,82	DEC 10,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	1322.0	23.6	4.19	4.35	0.0736	1.70	0.34
DEC 19,82	DEC 18,82	U 65.0	*****	*****	4.46	0.0570	2.45	0.92
DEC 20,82	DEC 19,82	*****	*****	*****	*****	*****	*****	*****
DEC 21,82	DEC 20,82	34.0	*****	*****	4.33	0.0776	0.80	0.74
DEC 24,82	DEC 23,82	532.0	46.0	3.99	3.98	0.1428	3.90	0.61
DEC 25,82	DEC 24,82	734.0	32.6	4.16	4.13	0.1014	2.50	0.38
DEC 26,82	DEC 25,82	173.0	*****	*****	4.62	0.0526	2.40	0.28
DEC 28,82	DEC 27,82	195.0	*****	4.24	4.24	0.0854	1.90	0.37
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	*****
JAN 1,83	DEC 31,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
DEC 1,82	NOV 30,82	*****	0.63	*****	*****	*****	*****	0.2399
DEC 3,82	DEC 2,82	0.03	0.21	0.010	<T 0.005	0.080	0.066	0.0457
DEC 4,82	DEC 3,82	0.04	0.06	0.005	<T 0.005	0.020	0.128	0.0427
DEC 5,82	DEC 4,82	0.11	0.34	0.025	0.025	0.175	0.160	U 0.1259
DEC 6,82	DEC 5,82	0.02	0.09	0.005	0.015	0.040	0.134	0.0372
DEC 9,82	DEC 8,82	*****	0.26	*****	*****	*****	*****	0.0229
DEC 11,82	DEC 10,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	0.07	0.20	0.010	0.010	0.010	0.110	0.0447
DEC 19,82	DEC 18,82	U 1.52	U 0.70	U 0.150	0.030	0.380	*****	0.0347
DEC 20,82	DEC 19,82	*****	*****	*****	*****	*****	*****	*****
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	0.0468
DEC 24,82	DEC 23,82	0.13	0.19	0.025	0.040	0.075	0.360	0.1047
DEC 25,82	DEC 24,82	0.06	0.34	0.025	0.025	0.150	0.136	0.0741
DEC 26,82	DEC 25,82	0.34	0.16	0.040	0.035	0.170	0.430	0.0240
DEC 28,82	DEC 27,82	0.04	0.22	0.020	0.015	0.130	0.108	0.0575
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	*****
JAN 1,83	DEC 31,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/SES

#08

PAGE : 1

REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT		SUBPROJECT		SAMPLER EFFICI- ENCY (%)	COMMENTS	
		START/END HR. HR.	START/END HR. HR.	01-RAIN	02-SNOW					01-STD.	02-APIOS	01-MOE	03-SPECIAL		03-AFS	04-ON HYDRO
03-COMP/04-ICE														1671		
JAN 2,82	JAN 1,82	900	830	900	1400	2	1.1	2	27211	2	1	47	N			
JAN 3,82	JAN 2,82	830	830	****	****	2	0.9	2	27212	2	1	37	N			
JAN 4,82	JAN 3,82	830	830	300	830	3	2.3	2	27213	2	1	86				
JAN 5,82	JAN 4,82	830	830	830	200	3	14.3	2	27215	2	1	88	C			
JAN 7,82	JAN 6,82	830	830	1200	1300	2	0.3	2	27218	2	1	10	E			
JAN 8,82	JAN 7,82	830	830	700	1000	2	****	2	27220	2	1	****	E			
JAN 9,82	JAN 8,82	830	830	****	****	2	3.3	2	27222	2	1	80				
JAN 10,82	JAN 9,82	830	830	****	****	2	0.3	2	27224	2	1	40				
JAN 11,82	JAN 10,82	830	900	1200	300	2	15.7	2	27225	2	1	55				
JAN 13,82	JAN 12,82	830	800	600	800	2	0.3	2	27228	2	1	223	C			
JAN 14,82	JAN 13,82	800	900	800	1300	2	1.4	2	27230	2	1	82				
JAN 16,82	JAN 15,82	800	830	****	****	2	4.5	2	27232	2	1	5	N			
JAN 17,82	JAN 16,82	830	830	1200	1400	2	1.9	2	27234	2	1	4	ECH			
JAN 18,82	JAN 17,82	830	800	600	800	2	0.5	2	27236	2	1	85				
JAN 19,82	JAN 18,82	800	830	****	****	2	****	2	27238	2	1	****	E			
JAN 20,82	JAN 19,82	830	800	****	****	2	0.4	2	27240	2	1	60	C			
JAN 23,82	JAN 22,82	800	830	500	830	4	16.2	2	27242	2	1	58				
JAN 24,82	JAN 23,82	830	830	830	1400	3	7.2	2	27244	2	1	60	C			
JAN 25,82	JAN 24,82	830	830	****	****	2	****	2	27246	2	1	****	E			
JAN 28,82	JAN 27,82	800	830	****	****	2	****	2	27248	2	1	****	E			
JAN 29,82	JAN 28,82	830	900	830	2200	2	2.5	2	27250	2	1	54				
JAN 30,82	JAN 29,82	900	900	2300	900	2	****	*	27252	2	1	****				
FEB 1,82	JAN 31,82	830	845	1500	600	2	17.1	2	27254	2	1	64				
FEB 4,82	FEB 3,82	815	800	1000	2300	2	16.7	2	27256	2	1	83				
FEB 6,82	FEB 5,82	845	830	1400	400	2	4.1	2	27258	2	1	95				
FEB 7,82	FEB 6,82	830	830	****	****	2	0.3	2	27260	2	1	40	E			
FEB 8,82	FEB 7,82	830	800	1200	100	2	3.9	2	27262	2	1	96				
FEB 9,82	FEB 8,82	800	930	1600	930	2	1.0	2	27264	2	1	****	G			
FEB 10,82	FEB 9,82	930	830	930	830	2	****	2	27266	2	1	****	E			
FEB 11,82	FEB 10,82	830	900	830	900	2	0.7	2	27269	2	1	47	E			
FEB 12,82	FEB 11,82	900	930	****	****	2	1.1	2	27270	2	1	41	N			
FEB 13,82	FEB 12,82	930	830	****	****	2	****	2	27272	2	1	****	E			
FEB 14,82	FEB 13,82	830	830	****	****	2	0.7	2	27274	2	1	82				
FEB 19,82	FEB 18,82	800	800	1800	2400	2	4.1	2	27277	2	1	93				
FEB 20,82	FEB 19,82	800	830	1600	1700	2	0.2	2	27278	2	1	61				
FEB 21,82	FEB 20,82	830	830	1600	830	2	7.2	2	27279	2	1	95				
FEB 22,82	FEB 21,82	830	800	830	1300	2	0.5	2	27281	2	1	85				
FEB 23,82	FEB 22,82	800	800	2400	400	2	1.0	2	27283	2	1	97				
FEB 27,82	FEB 26,82	800	830	****	****	2	1.2	2	27285	2	1	61				
MAR 1,82	FEB 28,82	830	800	****	****	2	0.9	2	27287	2	1	50	C			

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/SES

#08

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 2+82	JAN 1,82	1)	85.0	*****	4.15	*****	3.10	0.64
JAN 3+82	JAN 2,82	U	55.0	*****	4.21	*****	*****	*****
JAN 4,82	JAN 3,82		325.0	49.5	3.94	0.1524	3.65	0.78
JAN 5+82	JAN 4,82		2080.0	24.8	4.17	0.0926	1.85	0.38
JAN 7+82	JAN 6,82	U	5.0	*****	*****	*****	*****	*****
JAN 8,82	JAN 7,82		1.0	*****	*****	*****	*****	*****
JAN 9,82	JAN 8,82		435.0	19.6	4.24	0.0798	0.50	0.60
JAN 10+82	JAN 9,82	U	20.0	*****	4.37	*****	*****	*****
JAN 11+82	JAN 10,82		1440.0	5.0	5.16	0.0424	0.25	0.04
JAN 13,82	JAN 12,82		110.0	41.3	4.04	*****	0.60	1.04
JAN 14+82	JAN 13,82		190.0	*****	4.39	*****	0.50	0.38
JAN 16+82	JAN 15,82	U	44.0	39.5	4.00	0.1380	0.50	1.11
JAN 17,82	JAN 16,82	U	15.0	*****	*****	*****	*****	*****
JAN 18,82	JAN 17,82		70.0	*****	4.05	*****	0.60	1.12
JAN 19,82	JAN 18,82		10.0	*****	*****	*****	*****	*****
JAN 20,82	JAN 19,82		40.0	*****	*****	3.71	7.00	2.30
JAN 23+82	JAN 22,82		1560.0	9.2	4.66	0.0558	0.40	0.16
JAN 24+82	JAN 23,82		715.0	35.4	4.05	4.12	0.1088	0.72
JAN 25+82	JAN 24,82	<T	1.0	*****	*****	*****	*****	*****
JAN 28+82	JAN 27,82	<T	1.0	*****	*****	*****	*****	*****
JAN 29+82	JAN 28,82		225.0	56.0	3.93	0.1592	3.55	1.45
JAN 30+82	JAN 29,82		540.0	24.8	4.10	0.1062	1.25	0.66
FEB 1+82	JAN 31,82		1810.0	10.0	4.57	0.0558	0.50	0.22
FEB 4+82	FEB 3,82		2295.0	16.7	4.35	0.0706	0.50	0.40
FEB 6+82	FEB 5,82		645.0	12.8	4.43	0.0620	0.30	0.32
FEB 7+82	FEB 6,82	U	20.0	*****	*****	*****	*****	*****
FEB 8,82	FEB 7,82		620.0	35.3	4.02	0.1162	0.85	1.03
FEB 9,82	FEB 8,82		125.0	52.0	3.90	*****	1.45	1.38
FEB 10+82	FEB 9,82		5.0	*****	*****	*****	*****	*****
FEB 11+82	FEB 10,82	U	55.0	*****	*****	*****	*****	*****
FEB 12+82	FEB 11,82	U	75.0	*****	3.70	*****	1.45	1.46
FEB 13+82	FEB 12,82		20.0	*****	*****	*****	*****	*****
FEB 14+82	FEB 13,82		95.0	*****	4.25	*****	0.50	0.37
FEB 19+82	FEB 18,82		630.0	31.7	4.08	0.1016	1.50	0.69
FEB 20+82	FEB 19,82		20.0	*****	*****	*****	11.30	1.76
FEB 21+82	FEB 20,82		1130.0	*****	4.22	*****	1.20	0.29
FEB 22+82	FEB 21,82		70.0	*****	4.13	*****	2.25	0.40
FEB 23+82	FEB 22,82		160.0	*****	*****	*****	U 0.45	0.24
FEB 27+82	FEB 26,82		120.0	*****	4.15	*****	0.90	1.15
MAR 1+82	FEB 28,82		75.0	*****	4.20	*****	0.70	0.81

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/SES

#08

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 2,82	JAN 1,82	*****	0.18	*****	*****	*****	*****	0.0708
JAN 3,82	JAN 2,82	*****	*****	*****	*****	*****	*****	0.0617
JAN 4,82	JAN 3,82	0.05	0.16	<T 0.005	0.030	0.030	*****	0.1148
JAN 5,82	JAN 4,82	0.08	0.10	0.010	0.070	0.030	*****	0.0575
JAN 7,82	JAN 6,82	*****	*****	*****	*****	*****	*****	*****
JAN 8,82	JAN 7,82	*****	*****	*****	*****	*****	*****	*****
JAN 9,82	JAN 8,82	0.14	0.16	0.015	0.010	0.040	0.058	0.0447
JAN 10,82	JAN 9,82	*****	*****	*****	*****	*****	*****	0.0427
JAN 11,82	JAN 10,82	0.04	0.32	0.025	0.010	0.160	0.004	0.0069
JAN 13,82	JAN 12,82	0.10	U 0.84	0.020	0.030	0.140	*****	0.0912
JAN 14,82	JAN 13,82	0.02	0.27	<T 0.005	0.010	0.060	0.006	0.0407
JAN 16,82	JAN 15,82	0.06	0.31	0.020	0.030	0.060	0.036	0.1000
JAN 17,82	JAN 16,82	*****	*****	*****	*****	*****	*****	*****
JAN 18,82	JAN 17,82	*****	0.40	*****	*****	*****	*****	0.0891
JAN 19,82	JAN 18,82	*****	*****	*****	*****	*****	*****	0.1950
JAN 20,82	JAN 19,82	*****	1.06	*****	*****	*****	*****	0.0219
JAN 23,82	JAN 22,82	0.02	0.01	<T 0.005	0.020	0.010	0.026	0.0759
JAN 24,82	JAN 23,82	0.11	0.13	0.020	0.030	0.040	0.214	0.0372
JAN 25,82	JAN 24,82	*****	*****	*****	*****	*****	*****	*****
JAN 28,82	JAN 27,82	*****	*****	*****	*****	*****	*****	*****
JAN 29,82	JAN 28,82	0.30	0.36	0.045	0.050	0.140	0.780	0.1175
JAN 30,82	JAN 29,82	0.23	0.34	0.040	0.015	0.190	0.090	0.0724
FEB 1,82	JAN 31,82	0.04	0.04	<T 0.005	0.005	0.015	0.012	0.0240
FEB 4,82	FEB 3,82	0.04	0.13	<T 0.005	0.005	0.020	0.036	0.0457
FEB 6,82	FEB 5,82	0.01	0.03	<T 0.005	<T 0.005	0.010	0.006	0.0372
FEB 7,82	FEB 6,82	*****	*****	*****	*****	*****	*****	*****
FEB 8,82	FER 7,82	0.04	0.16	0.025	0.025	0.040	0.140	0.0955
FEB 9,82	FER 8,82	0.23	0.54	0.060	0.035	0.250	0.186	0.1259
FEB 10,82	FER 9,82	*****	*****	*****	*****	*****	*****	*****
FEB 11,82	FER 10,82	*****	*****	*****	*****	*****	*****	*****
FEB 12,82	FER 11,82	*****	U 1.22	*****	*****	*****	*****	*****
FEB 13,82	FER 12,82	*****	*****	*****	*****	*****	0.172	0.1995
FEB 14,82	FER 13,82	*****	0.29	*****	*****	*****	*****	*****
FEB 19,82	FER 18,82	0.16	0.15	0.015	<T 0.005	0.060	0.008	0.0562
FEB 20,82	FER 19,82	*****	*****	*****	*****	*****	0.082	0.0832
FEB 21,82	FER 20,82	0.04	0.13	<T 0.005	<T 0.005	0.090	0.180	0.0407
FEB 22,82	FER 21,82	*****	U 1.16	*****	*****	*****	*****	0.0741
FEB 23,82	FER 22,82	*****	0.11	*****	*****	*****	*****	*****
FEB 27,82	FER 26,82	0.58	0.41	0.115	0.005	0.125	0.104	0.0708
MAR 1,82	FER 28,82	*****	0.32	*****	*****	*****	0.092	0.0631

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/SES

#08

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END		PRECIP START/END		SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
		HR.	HR.	HR.	HR.									
MAR 2,82	MAR 1,82	800	800	1000	1800	2	4.5	2	27289	2	1	70		
MAR 3,82	MAR 2,82	800	830	****	****	2	****	2	27291	2	1	****	E	
MAR 5,82	MAR 4,82	800	930	1400	2400	2	11.7	2	27294	2	1	80		
MAR 6,82	MAR 5,82	930	830	****	****	2	0.2	2	27295	2	1	12	E	N
MAR 7,82	MAR 6,82	830	830	1600	800	2	2.2	2	27296	2	1	90		
MAR 8,82	MAR 7,82	830	800	2400	600	2	0.2	2	27298	2	1	45		
MAR 9,82	MAR 8,82	800	800	600	800	2	1.3	2	27300	2	1	63		
MAR 10,82	MAR 9,82	800	800	800	1600	2	0.9	2	27301	2	1	47		
MAR 11,82	MAR 10,82	800	800	830	2400	3	4.6	2	27303	2	1	82		
MAR 12,82	MAR 11,82	800	800	800	1500	1	3.3	2	27306	2	1	118		
MAR 13,82	MAR 12,82	800	830	200	830	1	18.1	2	27307	2	1	100		
MAR 14,82	MAR 13,82	830	830	830	200	3	2.1	2	27310	2	1	****	EFG	
MAR 17,82	MAR 16,82	800	800	1600	800	2	8.6	2	27311	2	1	68		
MAR 18,82	MAR 17,82	800	800	800	1000	4	****	2	27313	2	1	****	E	
MAR 19,82	MAR 18,82	800	930	1400	2200	3	3.9	2	27315	2	1	109		
MAR 22,82	MAR 21,82	830	800	1000	1700	2	8.2	2	27316	2	1	95	C	
MAR 23,82	MAR 22,82	800	800	2000	2200	2	0.6	2	27318	2	1	81		
MAR 26,82	MAR 25,82	800	830	1800	830	2	8.7	2	27320	2	1	77		
MAR 27,82	MAR 26,82	830	830	830	1200	2	0.3	2	27321	2	1	2	E	N
MAR 31,82	MAR 30,82	800	1000	2100	2300	1	2.8	2	27323	2	1	136		
APR 1,82	MAR 31,82	1000	930	1630	1800	3	0.5	2	27327	2	1	201		
APR 3,82	APR 2,82	800	830	700	830	1	13.0	2	27331	2	1	102		HM
APR 4,82	APR 3,82	830	830	830	800	3	7.1	2	27335	2	1	75	C	
APR 5,82	APR 4,82	830	1200	930	1400	2	0.9	2	27339	2	1	23	C	N

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/SES			#08			PAGE : 5		
REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH9.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAR 2,82	MAR 1,82	520.0	51.4	3.94	3.94	0.1562	2.35	1.29
MAR 3,82	MAR 2,82	2.0	*****	*****	*****	*****	*****	*****
MAR 5,82	MAR 4,82	1545.0	18.6	4.39	4.34	0.0734	0.35	0.51
MAR 6,82	MAR 5,82	U 4.0	*****	*****	*****	*****	*****	*****
MAR 7,82	MAR 6,82	325.0	40.5	*****	4.01	0.1282	0.75	1.09
MAR 8,82	MAR 7,82	U 15.0	*****	*****	*****	*****	*****	*****
MAR 9,82	MAR 8,82	135.0	68.0	*****	4.05	*****	U 6.05	U 2.07
MAR 10,82	MAR 9,82	U 70.0	*****	*****	4.09	*****	0.85	0.79
MAR 11,82	MAR 10,82	620.0	78.5	3.85	3.80	0.2220	5.10	1.61
MAR 12,82	MAR 11,82	640.0	60.5	3.88	3.85	0.1822	3.90	0.98
MAR 13,82	MAR 12,82	2990.0	47.9	3.99	3.96	0.1536	3.95	0.60
MAR 14,82	MAR 13,82	*****	*****	*****	*****	*****	*****	*****
MAR 17,82	MAR 16,82	970.0	18.2	4.47	4.45	0.0620	1.00	0.40
MAR 18,82	MAR 17,82	10.0	*****	*****	*****	*****	*****	*****
MAR 19,82	MAR 18,82	700.0	49.0	3.93	3.94	0.1432	2.20	1.03
MAR 22,82	MAR 21,82	1280.0	21.2	4.30	4.38	0.0750	1.55	0.33
MAR 23,82	MAR 22,82	80.0	*****	*****	4.25	0.0834	2.95	0.20
MAR 26,82	MAR 25,82	1105.0	10.3	4.70	4.69	0.0410	0.35	0.23
MAR 27,82	MAR 26,82	U 1.0	*****	*****	*****	*****	*****	*****
MAR 31,82	MAR 30,82	625.0	50.6	3.95	3.98	0.1540	4.60	1.09
APR 1,82	MAR 31,82	165.0	33.4	*****	U 6.33	0.0356	5.50	1.45
APR 3,82	APR 2,82	2190.0	11.5	4.54	4.58	0.0444	0.80	0.08
APR 4,82	APR 3,82	880.0	*****	U 6.46	*****	*****	*****	*****
APR 5,82	APR 4,82	U 35.0	*****	*****	4.20	0.0784	7.65	0.80

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/SES

#08

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAR 2,82	MAR 1,82	0.23	0.50	0.030	0.025	0.075	0.450	0.1148
MAR 3,82	MAR 2,82	*****	*****	*****	*****	*****	*****	*****
MAR 5,82	MAR 4,82	0.03	0.04	<T	0.005	<T	0.005	0.018
MAR 6,82	MAR 5,82	*****	*****	*****	*****	*****	*****	*****
MAR 7,82	MAR 6,82	0.12	0.32	0.015	<T	0.005	0.100	0.050
MAR 8,82	MAR 7,82	*****	*****	*****	*****	*****	*****	*****
MAR 9,82	MAR 8,82	U 2.24	U 1.14	U 0.195	0.075	U 0.470	U 1.490	0.0891
MAR 10,82	MAR 9,82	*****	0.35	*****	*****	*****	*****	0.0813
MAR 11,82	MAR 10,82	0.44	0.54	0.040	0.055	0.225	0.760	0.1585
MAR 12,82	MAR 11,82	0.10	0.24	0.010	0.025	0.050	0.660	0.1413
MAR 13,82	MAR 12,82	0.10	0.22	0.015	0.015	0.125	0.450	0.1096
MAR 14,82	MAR 13,82	*****	*****	*****	*****	*****	*****	*****
MAR 17,82	MAR 16,82	0.22	0.02	0.025	0.025	0.010	0.092	0.0355
MAR 18,82	MAR 17,82	*****	*****	*****	*****	*****	*****	*****
MAR 19,82	MAR 18,82	0.13	0.09	0.005	<T	0.005	0.015	0.1148
MAR 22,82	MAR 21,82	0.25	0.04	0.020	0.020	0.020	0.134	0.0417
MAR 23,82	MAR 22,82	*****	0.18	*****	*****	*****	0.108	0.0562
MAR 26,82	MAR 25,82	0.05	0.02	0.005	0.010	0.015	0.022	0.0204
MAR 27,82	MAR 26,82	*****	*****	*****	*****	*****	*****	*****
MAR 31,82	MAR 30,82	0.92	0.50	0.100	0.025	0.200	0.350	0.1047
APR 1,82	MAR 31,82	U 1.82	0.42	U 0.215	0.160	0.160	U 1.730	U 0.0005
APR 3,82	APR 2,82	0.13	0.03	0.010	0.015	0.005	0.094	0.0263
APR 4,82	APR 3,82	U 2.53	*****	U 0.185	0.250	0.135	*****	*****
APR 5,82	APR 4,82	*****	0.33	*****	*****	*****	*****	0.0631

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHM

#08

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END HR. HR.	START/END HR. HR.	01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER								
APR 11,82	APR 10,82	830	830	2300	830	2	4.9	2	27345	2	1	36	
APR 12,82	APR 11,82	830	830	830	2000	2	****	*	27348	2	1	***	
APR 13,82	APR 12,82	830	800	2300	800	1	8.1	2	27349	2	1	101	
APR 14,82	APR 13,82	800	800	800	1300	1	4.0	2	27354	2	1	128	
APR 15,82	APR 16,82	900	830	2130	530	1	8.5	2	27357	2	1	99	
APR 16,82	APR 17,82	830	830	830	1100	3	1.2	2	27360	2	1	52	C
APR 17,82	APR 19,82	800	830	30	430	1	4.3	2	27363	2	1	110	
APR 18,82	APR 20,82	830	800	1630	1830	1	13.4	2	27366	2	1	97	
MAY 1,82	MAY 2,82	900	1000	1500	1600	1	3.8	1	27367	2	1	94	C
MAY 2,82	MAY 5,82	800	830	500	700	1	3.6	1	27370	2	1	93	
MAY 3,82	MAY 7,82	800	900	1530	1630	1	6.3	1	27373	2	1	94	
MAY 4,82	MAY 8,82	900	900	600	1300	1	1.2	1	27376	2	1	13	E
MAY 5,82	MAY 12,82	900	900	1800	2000	1	1.4	1	27379	2	1	78	
MAY 6,82	MAY 17,82	900	900	730	900	1	0.8	1	27382	2	1	38	CA
MAY 7,82	MAY 18,82	900	830	900	930	1	0.6	1	27385	2	1	51	
MAY 8,82	MAY 19,82	830	830	1830	1900	1	4.2	1	27388	2	1	92	
MAY 9,82	MAY 20,82	830	830	1300	1730	1	7.7	1	27391	2	1	98	
MAY 10,82	MAY 23,82	900	900	1430	2330	1	9.0	1	27394	2	1	93	
MAY 11,82	MAY 27,82	800	900	530	800	1	3.0	1	27397	2	1	88	M
MAY 12,82	MAY 29,82	900	900	1130	1400	1	1.7	1	27400	2	1	87	
MAY 13,82	MAY 30,82	900	830	1330	2400	1	31.7	1	27403	2	1	101	
JUN 1,82	JUN 1,82	900	830	830	1630	1	4.9	1	27406	2	1	93	A
JUN 2,82	JUN 10,82	900	900	1500	2100	1	28.2	1	27411	2	1	110	T
JUN 3,82	JUN 12,82	900	830	500	600	1	2.2	1	27414	2	1	7	NZ
JUN 4,82	JUN 14,82	830	830	500	600	1	0.4	1	27417	2	1	77	
JUN 5,82	JUN 15,82	830	745	1400	2300	1	34.8	1	27418	2	1	104	
JUN 6,82	JUN 18,82	800	900	1800	900	1	15.1	1	27421	2	1	94	
JUN 7,82	JUN 19,82	900	900	900	1500	1	11.8	1	27424	2	1	88	
JUN 8,82	JUN 20,82	900	800	2200	300	1	8.2	1	27427	2	1	100	
JUN 9,82	JUN 21,82	800	815	1500	1600	1	4.2	1	27432	2	1	116	C
JUN 10,82	JUN 22,82	815	735	1300	1500	1	6.2	1	27433	2	1	98	
JUN 11,82	JUN 24,82	800	815	400	900	1	3.4	1	27438	2	1	119	
JUN 12,82	JUN 25,82	815	900	1500	2000	1	8.6	1	27441	2	1	90	
JUN 13,82	JUN 29,82	800	900	1000	1030	1	0.3	1	27444	2	1	52	E
JUL 1,82	JUL 30,82	900	900	1630	1830	1	3.2	1	27445	2	1	95	J
JUL 2,82	JUL 2,82	900	900	2100	2200	1	0.6	1	27448	2	1	26	E
JUL 3,82	JUL 7,82	830	830	1300	1400	1	1.6	1	27453	2	1	97	
JUL 4,82	JUL 11,82	900	900	700	800	1	0.3	1	27456	2	1	208	F
JUL 5,82	JUL 12,82	900	830	1130	1430	1	20.4	1	27460	2	1	93	F
JUL 6,82	JUL 12,82	830	830	830	1100	1	0.4	1	27461	2	1	19	E

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AERUCHEM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
APR 11.82	APR 10.82	U 115.0	*****	*****	3.98	0.1328	4.75	1.28
APR 12.82	APR 11.82	250.0	51.5	3.97	3.99	0.1272	5.20	0.59
APR 13.82	APR 12.82	525.0	38.5	4.10	4.15	0.0990	3.10	0.80
APR 14.82	APR 13.82	330.0	42.7	4.04	4.12	0.1082	4.15	0.65
APR 17.82	APR 16.82	540.0	68.0	3.82	3.92	0.1672	5.95	1.14
APR 18.82	APR 17.82	40.0	*****	*****	4.33	0.0804	4.15	0.56
APR 20.82	APR 19.82	305.0	38.1	4.15	4.30	0.0876	3.20	1.05
APR 21.82	APR 20.82	840.0	30.0	4.18	4.29	0.0786	2.75	0.35
MAY 3.82	MAY 2.82	230.0	39.0	4.09	4.23	0.1030	5.90	0.32
MAY 6.82	MAY 5.82	215.0	*****	3.75	3.80	0.2048	10.30	1.33
MAY 8.82	MAY 7.82	380.0	22.8	4.37	4.93	0.0480	4.00	0.55
MAY 9.82	MAY 8.82	U 10.0	*****	*****	*****	*****	*****	*****
MAY 17.82	MAY 16.82	70.0	*****	*****	4.09	0.1092	5.25	0.30
MAY 18.82	MAY 17.82	U 20.0	*****	*****	3.85	0.2034	*****	*****
MAY 19.82	MAY 18.82	20.0	*****	*****	3.35	0.5840	*****	*****
MAY 20.82	MAY 19.82	250.0	34.7	4.08	4.27	0.1002	3.60	0.54
MAY 21.82	MAY 20.82	485.0	11.0	4.48	4.75	*****	1.20	0.06
MAY 24.82	MAY 23.82	540.0	29.8	4.12	4.27	0.1016	2.70	0.34
MAY 28.82	MAY 27.82	170.0	37.9	3.99	4.19	0.1016	2.70	0.57
MAY 29.82	MAY 28.82	95.0	*****	*****	4.23	0.0946	2.50	0.43
MAY 31.82	MAY 30.82	2070.0	46.6	3.93	4.01	0.1282	4.40	0.34
JUN 2.82	JUN 1.82	295.0	65.0	3.81	3.92	0.1584	6.15	0.75
JUN 11.82	JUN 10.82	1990.0	58.0	3.80	3.81	0.1468	5.95	0.47
JUN 14.82	JUN 12.82	U 10.0	*****	*****	*****	*****	*****	*****
JUN 15.82	JUN 14.82	20.0	*****	*****	4.16	0.0932	*****	*****
JUN 16.82	JUN 15.82	2340.0	28.8	4.13	4.31	0.1124	2.50	0.31
JUN 19.82	JUN 18.82	910.0	35.0	4.09	4.26	0.0764	2.70	0.60
JUN 20.82	JUN 19.82	670.0	24.3	4.24	4.26	0.0698	2.05	0.19
JUN 21.82	JUN 20.82	530.0	20.1	4.38	4.46	0.0516	1.70	0.39
JUN 22.82	JUN 21.82	315.0	11.5	4.59	4.79	0.0332	1.00	0.09
JUN 23.82	JUN 22.82	390.0	8.4	4.56	4.78	0.0275	0.45	0.09
JUN 25.82	JUN 24.82	260.0	33.6	4.22	4.32	0.0792	3.50	0.63
JUN 26.82	JUN 25.82	500.0	15.0	4.43	4.61	0.0428	1.40	0.18
JUN 30.82	JUN 29.82	10.0	*****	*****	*****	*****	*****	*****
JUL 1.82	JUL 30.82	195.0	9.1	4.41	4.87	0.0288	0.95	0.06
JUL 3.82	JUL 2.82	U 10.0	*****	*****	*****	*****	*****	*****
JUL 8.82	JUL 7.82	100.0	57.0	*****	4.16	0.1168	9.05	0.97
JUL 11.82	JUL 10.82	40.0	*****	*****	3.41	0.4880	*****	*****
JUL 12.82	JUL 11.82	1220.0	39.9	4.02	4.11	0.1114	4.45	0.40
JUL 13.82	JUL 12.82	U 5.0	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLDRIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
APR 11,82	APR 10,82	0.14	0.16	0.025	0.030	0.085	1.060	0.1047
APR 12,82	APR 11,82	<W 0.01	0.11	0.010	0.060	0.045	0.750	0.1023
APR 13,82	APR 12,82	0.43	0.16	0.035	0.030	0.040	0.450	0.0708
APR 14,82	APR 13,82	0.31	0.19	0.085	0.025	0.045	0.580	0.0759
APR 17,82	APR 16,82	0.40	0.32	0.060	0.035	0.130	0.730	0.1202
APR 18,82	APR 17,82	*****	0.36	*****	*****	*****	*****	0.0468
APR 20,82	APR 19,82	0.53	0.15	0.065	0.030	0.035	0.650	0.0501
APR 21,82	APR 20,82	0.07	0.06	0.010	<T 0.010	0.020	0.256	0.0513
MAY 3,82	MAY 2,82	0.52	0.08	0.100	0.135	0.045	0.630	0.0589
MAY 6,82	MAY 5,82	0.99	0.12	0.235	0.060	0.060	1.200	0.1585
MAY 8,82	MAY 7,82	0.82	0.26	0.150	U 0.265	0.165	0.730	0.0117
MAY 9,82	MAY 8,82	*****	*****	*****	*****	*****	*****	*****
MAY 17,82	MAY 16,82	*****	0.14	*****	*****	*****	*****	0.0813
MAY 18,82	MAY 17,82	*****	*****	*****	*****	*****	*****	0.1413
MAY 19,82	MAY 18,82	*****	*****	*****	*****	*****	*****	0.4467
MAY 20,82	MAY 19,82	0.20	0.09	0.040	0.095	<T 0.010	0.450	0.0537
MAY 21,82	MAY 20,82	0.06	<W 0.01	0.005	<T 0.015	0.025	0.078	0.0178
MAY 24,82	MAY 23,82	0.06	0.04	0.005	0.050	0.045	0.202	0.0537
MAY 28,82	MAY 27,82	0.08	0.01	0.010	0.020	0.015	0.168	0.0646
MAY 29,82	MAY 28,82	*****	<W 0.01	*****	*****	*****	0.162	0.0589
MAY 31,82	MAY 30,82	0.02	0.04	<W 0.005	<T 0.010	<W 0.005	0.242	0.0977
JUN 2,82	JUN 1,82	0.17	U 0.42	0.025	0.040	U 0.270	0.590	0.1202
JUN 11,82	JUN 10,82	0.15	0.08	0.005	0.030	0.015	0.500	0.1549
JUN 14,82	JUN 12,82	*****	*****	*****	*****	*****	*****	*****
JUN 15,82	JUN 14,82	*****	*****	*****	*****	*****	*****	0.0692
JUN 16,82	JUN 15,82	0.03	0.07	0.005	0.065	<T 0.005	0.212	0.0490
JUN 19,82	JUN 18,82	0.09	0.12	0.015	0.105	0.040	0.330	0.0550
JUN 20,82	JUN 19,82	<W 0.01	0.03	<W 0.005	<T 0.010	<W 0.005	0.104	0.0550
JUN 21,82	JUN 20,82	0.12	0.02	0.015	0.050	<T 0.005	0.390	0.0347
JUN 22,82	JUN 21,82	0.02	0.02	<W 0.005	<W 0.005	<T 0.005	0.120	0.0162
JUN 23,82	JUN 22,82	<T 0.01	0.01	<W 0.005	<W 0.005	<T 0.005	0.026	0.0166
JUN 25,82	JUN 24,82	0.27	0.08	0.080	0.095	0.050	0.570	0.0479
JUN 26,82	JUN 25,82	0.03	0.01	0.025	0.035	0.045	0.222	0.0245
JUN 30,82	JUN 29,82	*****	*****	*****	*****	*****	*****	*****
JUL 1,82	JUN 30,82	0.16	0.01	0.025	0.025	<T 0.005	0.068	0.0135
JUL 3,82	JUL 2,82	*****	*****	*****	*****	*****	*****	*****
JUL 8,82	JUL 7,82	*****	0.31	*****	*****	*****	*****	0.0692
JUL 11,82	JUL 10,82	*****	*****	*****	*****	*****	*****	0.3890
JUL 12,82	JUL 11,82	0.19	0.11	0.035	0.035	0.065	0.460	0.0775
JUL 13,82	JUL 12,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
JUL 18.82	JUL 17.82	**** 900	1500 1600	1 3.2	1 27464	2	1	99			
JUL 19.82	JUL 18.82	900 815	1600 1730	1 16.4	1 27467	2	1	99			
JUL 26.82	JUL 25.82	800 800	1000 1015	1 0.1	1 27473	2	1	78	E		
JUL 28.82	JUL 27.82	800 830	2100 300	1 7.6	1 27476	2	1	98			JM
JUL 29.82	JUL 28.82	830 800	1300 1500	1 3.0	1 27479	2	1	80			
JUL 31.82	JUL 30.82	800 800	1900 2130	1 4.0	1 27482	2	1	95			
AUG 2.82	AUG 1.82	800 1000	930 1000	1 1.0	1 27485	2	1	124			N
AUG 3.82	AUG 2.82	1000 815	1000 1200	1 4.6	1 27488	2	1	86			JHCM
AUG 4.82	AUG 3.82	800 800	1700 2200	1 4.0	1 27491	2	1	95			J
AUG 5.82	AUG 4.82	800 800	1500 1530	1 0.5	1 27495	2	1	31	E		N
AUG 9.82	AUG 8.82	800 800	1330 2030	1 2.8	1 27498	2	1	61			
AUG 10.82	AUG 9.82	800 800	730 745	1 ****	1 27501	2	1	***	E		
AUG 11.82	AUG 10.82	800 800	1000 1030	1 0.2	1 27504	2	1	39	E		N
AUG 14.82	AUG 13.82	800 800	630 700	1 1.0	1 27507	2	1	101			
AUG 20.82	AUG 19.82	800 800	1100 1735	1 13.6	1 27510	2	1	96			
AUG 23.82	AUG 22.82	800 830	1200 330	1 20.4	1 27516	2	1	93			
AUG 25.82	AUG 24.82	830 830	300 830	1 10.5	1 27520	2	1	99			HM
AUG 26.82	AUG 25.82	830 900	830 1000	1 1.0	1 27522	2	1	46			N
AUG 28.82	AUG 27.82	800 1130	1130 1230	1 9.5	1 27524	2	1	100			
AUG 29.82	AUG 28.82	1130 800	1130 1400	1 3.2	1 27526	2	1	41			N
AUG 31.82	AUG 30.82	800 800	1820 1830	1 0.2	1 27528	2	1	***	E		
SEP 2.82	SEP 1.82	800 800	1900 2100	1 10.0	1 27530	2	1	95			
SEP 3.82	SEP 2.82	800 800	1630 1900	1 16.4	1 27532	2	1	99			HM
SEP 4.82	SEP 3.82	800 800	900 1100	1 9.4	1 27534	2	1	86			HM
SEP 6.82	SEP 5.82	800 900	2330 800	1 30.0	1 27536	2	1	72			
SEP 14.82	SEP 13.82	830 830	700 830	1 0.6	1 27538	2	1	104			
SEP 15.82	SEP 14.82	830 830	100 400	1 1.8	1 27540	2	1	82			
SEP 16.82	SEP 15.82	830 850	2230 2330	1 2.6	1 27541	2	1	69			
SEP 18.82	SEP 17.82	830 830	2230 630	1 18.8	1 27543	2	1	***	G		
SEP 21.82	SEP 20.82	830 830	1530 1700	1 14.0	1 27545	2	1	96			
SEP 25.82	SEP 24.82	830 830	2300 300	1 2.8	1 27547	2	1	80			
SEP 27.82	SEP 26.82	830 800	530 800	1 1.6	1 27549	2	1	43			N
SEP 28.82	SEP 27.82	810 830	1100 1600	1 9.1	1 27551	2	1	96			HM
OCT 1.82	SEP 30.82	830 830	750 830	1 5.7	1 27553	2	1	97			
OCT 2.82	OCT 1.82	830 830	900 1100	1 2.6	1 27555	2	1	87	A		
OCT 4.82	OCT 3.82	830 830	930 1030	1 0.8	1 27557	2	1	78			
OCT 7.82	OCT 6.82	830 1000	2400 2430	1 3.2	1 27559	2	1	90			
OCT 8.82	OCT 7.82	1000 800	1000 1600	1 6.0	1 27561	2	1	94			
OCT 9.82	OCT 8.82	800 900	1430 1800	1 10.0	1 27563	2	1	98			H
OCT 11.82	OCT 10.82	900 900	530 800	1 1.8	1 27565	2	1	91			

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JUL 18,82	JUL 17,82	205.0	33.9	*****	4.18	0.0886	4.15	0.40
JUL 19,82	JUL 18,82	1050.0	21.1	4.30	4.44	0.0464	1.30	0.20
JUL 26,82	JUL 25,82	5.0	*****	*****	*****	*****	*****	*****
JUL 28,82	JUL 27,82	480.0	4.7	4.64	5.06	0.0296	0.20	0.07
JUL 29,82	JUL 28,82	155.0	14.5	*****	4.66	0.0452	0.45	0.11
JUL 31,82	JUL 30,82	245.0	93.0	3.64	3.64	0.2360	8.70	1.49
AUG 2,82	AUG 1,82	80.0	*****	*****	U 6.07	0.0402	1.75	0.43
AUG 3,82	AUG 2,82	255.0	8.5	4.51	U 5.87	U 0.4980	0.60	0.20
AUG 4,82	AUG 3,82	245.0	20.3	4.20	4.53	0.0490	2.05	0.41
AUG 5,82	AUG 4,82	U 10.0	*****	*****	*****	*****	*****	*****
AUG 9,82	AUG 8,82	110.0	*****	*****	3.86	0.1494	6.75	0.35
AUG 10,82	AUG 9,82	5.0	*****	*****	*****	*****	*****	*****
AUG 11,82	AUG 10,82	U 5.0	*****	*****	*****	*****	*****	*****
AUG 14,82	AUG 13,82	65.0	*****	*****	4.73	0.0422	1.70	0.23
AUG 20,82	AUG 19,82	845.0	29.5	4.18	4.29	0.0712	4.10	0.51
AUG 23,82	AUG 22,82	1225.0	25.5	4.19	4.21	0.0752	2.35	0.37
AUG 25,82	AUG 24,82	670.0	9.4	4.55	4.70	0.0398	0.65	0.15
AUG 26,82	AUG 25,82	U 30.0	*****	*****	4.69	0.0370	0.30	0.09
AUG 28,82	AUG 27,82	610.0	12.5	4.49	4.61	0.0540	1.40	0.18
AUG 29,82	AUG 28,82	U 85.0	*****	*****	5.28	0.0320	0.15	<W 0.01
AUG 31,82	AUG 30,82	*****	*****	*****	*****	*****	*****	*****
SEP 2,82	SEP 1,82	615.0	44.6	3.99	3.96	0.1310	4.25	0.53
SEP 3,82	SEP 2,82	1045.0	4.8	4.86	4.97	0.0334	0.35	0.07
SEP 4,82	SEP 3,82	520.0	2.7	5.15	5.21	0.0360	0.10	<W 0.01
SEP 6,82	SEP 5,82	1395.0	14.8	4.47	4.49	0.0630	1.40	0.19
SEP 14,82	SEP 13,82	40.0	*****	*****	4.21	0.0786	3.15	0.43
SEP 15,82	SEP 14,82	95.0	29.9	*****	4.25	0.0764	3.20	0.39
SEP 16,82	SEP 15,82	115.0	9.3	*****	4.65	0.0426	0.70	0.11
SEP 18,82	SEP 17,82	815.0	14.6	4.40	4.38	0.0582	1.25	0.20
SEP 21,82	SEP 20,82	870.0	28.5	4.21	4.16	0.0842	2.70	0.49
SEP 25,82	SEP 24,82	145.0	89.0	*****	3.66	0.2268	7.10	1.67
SEP 27,82	SEP 26,82	U 45.0	*****	*****	4.20	0.0756	1.70	0.41
SEP 28,82	SEP 27,82	565.0	6.4	4.91	4.90	0.0318	0.40	0.56
OCT 1,82	SEP 30,82	355.0	38.5	4.03	4.05	0.1112	4.05	0.47
OCT 2,82	OCT 1,82	145.0	23.4	*****	4.26	0.0670	3.10	0.20
OCT 4,82	OCT 3,82	40.0	*****	*****	3.43	0.4880	16.00	2.67
OCT 7,82	OCT 6,82	186.0	*****	3.40	3.36	0.4896	24.75	2.63
OCT 8,82	OCT 7,82	364.0	98.0	3.63	3.63	0.2756	9.75	1.02
OCT 9,82	OCT 8,82	630.0	23.6	4.62	4.63	0.0602	3.15	0.77
OCT 11,82	OCT 10,82	105.0	*****	*****	3.76	0.1840	7.60	0.66

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JUL 18.82	JUL 17.82	0.17	0.19	0.020	0.160	0.080	*****	0.0661
JUL 19.82	JUL 18.82	0.04	0.03	0.015	<T 0.010	0.020	0.142	0.0363
JUL 26.82	JUL 25.82	*****	*****	*****	*****	*****	*****	*****
JUL 28.82	JUL 27.82	0.05	0.03	<W 0.005	<W 0.005	<T 0.005	*****	0.0087
JUL 29.82	JUL 28.82	0.04	0.08	0.010	0.035	0.015	0.044	0.0219
JUL 31.82	JUL 30.82	0.82	0.34	0.150	0.105	0.020	0.520	0.2291
AUG 2.82	AUG 1.82	*****	0.24	*****	*****	*****	*****	U 0.0009
AUG 3.82	AUG 2.82	0.20	0.10	0.050	0.105	0.055	0.390	U 0.0013
AUG 4.82	AUG 3.82	0.16	0.15	0.020	0.110	0.050	0.670	0.0295
AUG 5.82	AUG 4.82	*****	*****	*****	*****	*****	*****	*****
AUG 9.82	AUG 8.82	0.07	0.04	0.015	0.045	0.015	0.450	0.1380
AUG 10.82	AUG 9.82	*****	*****	*****	*****	*****	*****	*****
AUG 11.82	AUG 10.82	*****	*****	*****	*****	*****	*****	*****
AUG 14.82	AUG 13.82	*****	*****	*****	*****	*****	*****	*****
AUG 20.82	AUG 19.82	0.48	0.30	*****	*****	*****	*****	*****
AUG 23.82	AUG 22.82	0.06	0.08	0.090	0.045	0.025	0.314	0.0186
AUG 25.82	AUG 24.82	0.16	0.06	<W 0.005	0.090	<T 0.010	0.700	0.0513
AUG 26.82	AUG 25.82	*****	0.02	0.025	0.045	<T 0.010	0.276	0.0617
AUG 28.82	AUG 27.82	0.29	0.29	*****	*****	0.112	0.0200	0.0204
AUG 29.82	AUG 28.82	0.09	0.19	0.040	0.085	0.085	*****	0.0245
AUG 31.82	AUG 30.82	*****	0.14	*****	*****	0.244	0.0052	*****
SEP 2.82	SEP 1.82	0.06	0.08	0.015	<T 0.015	<T 0.010	0.390	*****
SEP 3.82	SEP 2.82	0.01	0.04	0.005	<T 0.005	<T 0.005	0.122	0.1096
SEP 4.82	SEP 3.82	<T 0.01	0.07	0.005	0.030	0.020	0.038	0.0107
SEP 6.82	SEP 5.82	0.05	0.05	0.015	0.040	0.015	0.208	0.0062
SEP 14.82	SEP 13.82	*****	0.41	*****	*****	*****	0.324	*****
SEP 15.82	SEP 14.82	0.16	0.23	0.020	0.125	0.105	*****	0.0617
SEP 16.82	SEP 15.82	0.03	0.15	0.005	0.050	0.060	*****	0.0562
SEP 18.82	SEP 17.82	0.06	0.07	0.015	0.020	0.015	0.096	0.0224
SEP 21.82	SEP 20.82	0.10	0.14	0.020	0.010	0.035	0.480	0.0417
SEP 25.82	SEP 24.82	0.30	0.39	0.050	0.265	0.145	1.040	0.0692
SEP 27.82	SEP 26.82	*****	0.29	*****	*****	*****	*****	0.2188
SEP 28.82	SEP 27.82	<W 0.01	0.11	<W 0.005	0.005	0.010	*****	0.0631
OCT 1.82	SEP 30.82	0.26	0.15	0.030	0.030	0.054	0.054	0.0126
OCT 2.82	OCT 1.82	0.05	0.14	0.005	0.050	0.510	0.0891	*****
OCT 4.82	OCT 3.82	*****	0.71	*****	*****	0.075	0.520	0.0550
OCT 7.82	OCT 6.82	U 2.00	0.52	U 0.415	0.190	0.085	U 2.850	0.3715
OCT 8.82	OCT 7.82	0.27	0.30	0.040	0.080	0.090	0.900	0.4365
OCT 9.82	OCT 8.82	0.74	0.06	0.075	0.050	0.015	0.978	0.2344
OCT 11.82	OCT 10.82	0.47	0.32	0.050	0.155	0.165	*****	0.0234
								0.1738

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR.	SAMPLING END HR.	PRECIP START/END HR.	PRECIP END HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICIENCY (%)	COMMENTS FIELD OFFICE
01-RAIN 02-STD. 02-APIOS 01-MOE 03-SPECIAL 03-AES 04-ON HYDRO													
02-SNOW 02-NIPHER													
03-COMP/04-ICE													
OCT 12,82	OCT 11,82	900	900	800	900	1	1.0	1	27567	2	1	124	N
OCT 13,82	OCT 12,82	900	900	600	900	1	4.2	1	27569	2	1	70	
OCT 14,82	OCT 13,82	900	830	1500	600	1	5.2	1	27571	2	1	91	
OCT 15,82	OCT 14,82	830	750	1100	2300	1	19.3	1	27573	2	1	96	FJ M
OCT 16,82	OCT 15,82	750	930	730	930	3	1.2	1	27575	2	1	201	NHM
OCT 18,82	OCT 17,82	750	750	630	800	1	1.0	1	27577	2	1	93	
OCT 19,82	OCT 18,82	750	900	730	800	1	0.8	1	27579	2	1	97	A
OCT 21,82	OCT 20,82	800	800	1330	1730	1	10.0	1	27581	2	1	95	
NOV 1,82	OCT 31,82	915	915	1930	2230	1	1.0	1	27583	2	1	62	CJ
NOV 2,82	NOV 1,82	800	800	1430	800	1	4.8	1	27585	2	1	97	FJ
NOV 3,82	NOV 2,82	800	800	2230	200	1	10.8	1	27587	2	1	96	FJ
NOV 4,82	NOV 3,82	800	800	2230	800	1	8.8	1	27590	2	1	101	
NOV 5,82	NOV 4,82	800	800	800	1000	1	13.2	1	27593	2	1	98	J
NOV 6,82	NOV 5,82	800	1500	1530	2100	2	16.9	2	27596	2	1	59	F JL HM
NOV 11,82	NOV 10,82	800	830	100	500	1	2.4	1	27600	2	1	100	
NOV 12,82	NOV 11,82	830	800	1630	530	1	19.8	1	27603	2	1	95	
NOV 13,82	NOV 12,82	800	830	930	2330	1	15.2	1	27606	2	1	88	
NOV 15,82	NOV 14,82	830	800	1500	300	2	4.9	2	27609	2	1	31	N
NOV 21,82	NOV 20,82	900	900	900	900	1	23.4	1	27616	2	1	91	
NOV 22,82	NOV 21,82	900	800	1430	1500	4	0.8	1	27619	2	1	78	
NOV 24,82	NOV 23,82	800	800	1330	300	3	15.7	2	27622	2	1	91	
NOV 25,82	NOV 24,82	800	800	800	800	2	0.5	2	27625	2	1	**** EK	
NOV 26,82	NOV 25,82	800	800	600	800	2	1.8	2	27628	2	1	52	
NOV 27,82	NOV 26,82	800	800	800	2100	2	1.9	2	27631	2	1	28	N
NOV 29,82	NOV 28,82	800	800	1800	800	1	10.4	2	27634	2	1	97	
NOV 30,82	NOV 29,82	800	800	800	800	1	12.2	2	27637	2	1	93	
DEC 1,82	NOV 30,82	800	800	30	200	1	0.8	2	27640	2	1	107	
DEC 3,82	DEC 2,82	800	800	1500	800	1	12.6	2	27643	2	1	97	
DEC 4,82	DEC 3,82	800	800	800	2400	1	3.8	2	27646	2	1	117	
DEC 5,82	DEC 4,82	800	800	600	800	1	1.4	2	27649	2	1	72	
DEC 6,82	DEC 5,82	800	800	800	800	1	28.6	2	27652	2	1	97	
DEC 7,82	DEC 6,82	800	800	800	2400	3	1.1	2	27655	2	1	120	N
DEC 9,82	DEC 8,82	800	800	1200	2400	2	3.8	2	27658	2	1	36	N
DEC 11,82	DEC 10,82	800	800	800	2400	2	4.7	2	27661	2	1	28	C N
DEC 12,82	DEC 11,82	800	800	1700	200	2	0.6	2	27664	2	1	64	C
DEC 15,82	DEC 14,82	800	800	1200	1800	*	****	2	27667	2	1	**** EK	
DEC 16,82	DEC 15,82	800	800	1200	800	3	16.9	2	27670	2	1	78	
DEC 17,82	DEC 16,82	800	800	800	2000	2	2.5	2	27673	2	1	46	
DEC 19,82	DEC 18,82	800	800	****	****	2	1.4	2	27676	2	1	27	N
DEC 20,82	DEC 19,82	800	800	800	800	2	4.1	2	27679	2	1	28	N

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
OCT 12,82	OCT 11,82	80.0	*****	*****	3.68	0.2286	9.60	1.35
OCT 13,82	OCT 12,82	191.0	*****	4.26	4.20	0.0808	2.10	0.56
OCT 14,82	OCT 13,82	305.0	17.1	4.49	4.41	0.0572	1.30	0.36
OCT 15,82	OCT 14,82	1190.0	4.9	5.02	5.06	0.0330	0.35	0.04
OCT 16,82	OCT 15,82	155.0	*****	*****	4.94	0.0390	<T 0.05	0.01
OCT 17,82	OCT 17,82	60.0	*****	*****	4.84	0.0390	0.05	0.33
OCT 18,82	OCT 18,82	50.0	*****	*****	3.97	0.1192	4.40	0.63
OCT 19,82	OCT 20,82	610.0	24.6	4.29	4.23	0.0808	2.60	0.30
NOV 1,82	OCT 31,82	40.0	*****	*****	4.05	0.1066	5.10	0.86
NOV 2,82	NOV 1,82	300.0	*****	*****	3.99	0.1152	3.00	0.76
NOV 3,82	NOV 2,82	670.0	33.0	4.12	4.08	0.0962	2.75	0.62
NOV 4,82	NOV 3,82	575.0	6.8	*****	4.78	0.0356	0.25	0.17
NOV 5,82	NOV 4,82	830.0	12.8	*****	4.50	0.0502	1.00	0.23
NOV 6,82	NOV 5,82	640.0	7.4	4.80	4.89	0.0370	0.50	0.10
NOV 11,82	NOV 10,82	155.0	*****	*****	3.67	0.2160	6.05	1.58
NOV 12,82	NOV 11,82	1215.0	39.4	4.05	4.02	0.1010	3.20	0.69
NOV 13,82	NOV 12,82	860.0	24.0	4.24	4.25	0.0642	2.40	0.22
NOV 15,82	NOV 14,82	U 100.0	*****	*****	4.23	0.0698	1.00	0.61
NOV 21,82	NOV 20,82	1375.0	29.0	4.14	4.15	0.0958	2.65	0.35
NOV 22,82	NOV 21,82	40.0	*****	*****	4.38	0.0618	2.10	0.16
NOV 24,82	NOV 23,82	920.0	8.8	4.67	4.70	0.0428	0.45	0.13
NOV 25,82	NOV 24,82	*****	*****	*****	*****	*****	*****	*****
NOV 26,82	NOV 25,82	60.0	*****	*****	4.55	0.0450	0.45	0.54
NOV 27,82	NOV 26,82	U 35.0	*****	*****	4.17	0.0882	2.65	1.13
NOV 29,82	NOV 28,82	650.0	21.0	4.32	4.24	0.0736	1.50	0.29
NOV 30,82	NOV 29,82	730.0	16.5	4.38	4.38	0.0624	1.35	0.14
DEC 1,82	NOV 30,82	55.0	*****	*****	3.78	0.1774	4.70	1.43
DEC 3,82	DEC 2,82	790.0	21.0	4.30	4.34	0.0802	1.75	0.20
DEC 4,82	DEC 3,82	285.0	20.0	4.32	4.35	0.0770	1.65	0.24
DEC 5,82	DEC 4,82	65.0	*****	*****	5.02	0.0320	0.70	0.06
DEC 6,82	DEC 5,82	1795.0	15.5	4.48	4.51	0.0656	1.20	0.16
DEC 7,82	DEC 6,82	85.0	*****	*****	4.31	0.0718	1.50	0.48
DEC 9,82	DEC 8,82	U 90.0	*****	*****	4.54	0.0464	0.40	0.37
DEC 11,82	DEC 10,82	U 85.0	*****	*****	4.25	0.0814	2.40	0.84
DEC 12,82	DEC 11,82	25.0	*****	*****	5.37	0.0196	*****	*****
DEC 15,82	DEC 14,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	855.0	14.2	4.33	4.54	0.0532	0.80	0.22
DEC 17,82	DEC 16,82	U 75.0	*****	*****	4.47	0.0518	1.40	0.14
DEC 19,82	DEC 18,82	U 25.0	*****	*****	4.49	0.0524	*****	*****
DEC 20,82	DEC 19,82	U 75.0	*****	*****	4.28	0.0732	1.00	0.67

ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : DORSET/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
OCT 12,82	OCT 11,82	*****	0.31	*****	*****	*****	*****	0.2089
OCT 13,82	OCT 12,82	0.14	<T	0.01	0.005	0.010	0.438	0.0631
OCT 14,82	OCT 13,82	0.14		0.05	0.010	0.055	0.282	0.0389
OCT 15,82	OCT 14,82	0.05	<W	0.01	<W 0.005	0.010	0.020	0.0087
OCT 16,82	OCT 15,82	<W 0.01	<W	0.01	<W 0.005	<W 0.005	0.020	0.0115
OCT 18,82	OCT 17,82	*****	0.09	*****	*****	*****	*****	0.0145
OCT 19,82	OCT 18,82	*****	0.13	*****	*****	*****	*****	0.1072
OCT 21,82	OCT 20,82	0.27	0.31	0.045	0.040	0.160	0.238	0.0589
NOV 1,82	OCT 31,82	*****	0.12	*****	*****	*****	*****	0.0891
NOV 2,82	NOV 1,82	0.21	0.10	0.025	0.090	0.065	0.228	0.1023
NOV 3,82	NOV 2,82	0.14	0.11	0.025	0.035	0.085	0.312	0.0832
NOV 4,82	NOV 3,82	0.06	0.02	0.010	0.015	0.015	0.006	0.0166
NOV 5,82	NOV 4,82	0.04	<T	0.01	0.010	0.005	<W 0.005	0.106
NOV 6,82	NOV 5,82	0.05	<W	0.01	0.010	0.005	<W 0.005	0.144
NOV 11,82	NOV 10,82	0.32	0.53	0.060	0.095	0.250	0.850	0.2138
NOV 12,82	NOV 11,82	0.14	0.18	0.025	0.025	0.110	0.550	0.0955
NOV 13,82	NOV 12,82	0.10	0.14	0.020	0.060	0.090	0.280	0.0562
NOV 15,82	NOV 14,82	0.14	0.17	0.020	0.060	0.100	0.126	0.0589
NOV 21,82	NOV 20,82	0.02	0.13	<W 0.005	0.015	0.030	0.210	0.0708
NOV 22,82	NOV 21,82	*****	0.09	*****	*****	*****	*****	0.0417
NOV 24,82	NOV 23,82	<W 0.01	0.05	<W 0.005	<W 0.005	<W 0.005	0.010	0.0200
NOV 25,82	NOV 24,82	*****	*****	*****	*****	*****	*****	*****
NOV 26,82	NOV 25,82	*****	0.10	*****	*****	*****	*****	0.0282
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	0.0676
NOV 29,82	NOV 28,82	0.02	0.10	<W 0.005	0.015	0.020	0.058	0.0575
NOV 30,82	NOV 29,82	0.01	0.08	<W 0.005	0.015	0.020	0.020	0.0417
DEC 1,82	NOV 30,82	*****	0.34	*****	*****	*****	*****	0.1660
DEC 3,82	DEC 2,82	0.03	0.14	0.010	<T 0.010	0.060	0.070	0.0457
DEC 4,82	DEC 3,82	0.07	0.15	0.005	<T 0.010	0.055	0.088	0.0447
DEC 5,82	DEC 4,82	0.11	0.22	0.015	0.170	0.155	*****	0.0095
DEC 6,82	DEC 5,82	0.03	0.13	0.010	0.020	0.040	0.074	0.0309
DEC 7,82	DEC 6,82	0.10	0.10	0.010	0.015	0.040	*****	0.0490
DEC 9,82	DEC 8,82	0.13	0.15	0.015	0.010	<T 0.010	0.014	0.0288
DEC 11,82	DEC 10,82	*****	0.19	*****	*****	*****	0.570	0.0562
DEC 12,82	DEC 11,82	*****	*****	*****	*****	*****	*****	0.0043
DEC 15,82	DEC 14,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	0.02	0.03	<W 0.005	<W 0.005	0.010	0.038	0.0288
DEC 17,82	DEC 16,82	0.05	0.09	<W 0.005	0.030	0.045	*****	0.0339
DEC 19,82	DEC 18,82	*****	*****	*****	*****	*****	*****	0.0324
DEC 20,82	DEC 19,82	0.08	0.13	0.015	0.015	0.060	*****	0.0525

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR. HR.	SAMPLE START/END HR. HR.	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END HR. HR.	TYPE									
DEC 21,82	DEC 20,82	800 900	800 2400	2	3.1	2	27682	2	1	43	N	
DEC 23,82	DEC 22,82	800 800	1000 1400	2	1.1	2	27685	2	1	29	N	
DEC 24,82	DEC 23,82	800 900	1800 300	1	11.0	2	27688	2	1	91		
DEC 25,82	DEC 24,82	900 900	1600 900	1	17.9	2	27691	2	1	101		
DEC 26,82	DEC 25,82	900 900	900 1300	1	2.5	2	27694	2	1	111		
DEC 28,82	DEC 27,82	900 900	**** ****	1	13.6	2	27698	2	1	84		
DEC 29,82	DEC 28,82	900 930	1600 1900	3	12.8	2	27701	2	1	90		
DEC 30,82	DEC 29,82	930 930	930 1500	2	1.3	2	27704	2	1	15	N	
DEC 31,82	DEC 30,82	930 800	1200 1800	2	1.4	2	27707	2	1	37	N	
JAN 1,83	DEC 31,82	800 900	**** ****	2	2.8	2	27710	2	1	13	N	

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
DEC 21,82	DEC 20,82	U 86.0	*****	*****	4.28	0.0726	0.45	0.72
DEC 23,82	DEC 22,82	U 21.0	*****	*****	4.58	0.0478	*****	*****
DEC 24,82	DEC 23,82	645.0	38.5	3.93	4.08	0.1118	3.30	0.52
DEC 25,82	DEC 24,82	1160.0	27.5	4.09	4.22	0.0804	2.05	0.37
DEC 26,82	DEC 25,82	178.0	*****	4.42	4.67	0.0454	1.80	0.22
DEC 28,82	DEC 27,82	734.0	23.0	4.19	4.34	0.0698	2.00	0.24
DEC 29,82	DEC 28,82	739.0	17.6	4.43	4.58	0.0494	2.00	0.26
DEC 30,82	DEC 29,82	U 13.0	*****	*****	4.81	0.0370	*****	*****
DEC 31,82	DEC 30,82	U 34.0	*****	*****	4.69	0.0384	0.85	0.19
JAN 1,83	DEC 31,82	U 25.0	*****	*****	4.36	0.0686	1.50	0.96

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
DEC 21,82	DEC 20,82	*****	0.11	*****	*****	*****	0.024	0.0525
DEC 23,82	DEC 22,82	*****	*****	*****	*****	*****	*****	0.0263
DEC 24,82	DEC 23,82	0.19	0.13	0.020	0.025	0.050	0.266	0.0832
DEC 25,82	DEC 24,82	0.05	0.19	0.015	0.045	0.105	0.192	0.0603
DEC 26,82	DEC 25,82	0.18	0.15	0.020	0.100	0.100	0.366	0.0214
DEC 28,82	DEC 27,82	0.05	0.25	0.015	0.025	0.140	0.130	0.0457
DEC 29,82	DEC 28,82	0.17	0.12	0.030	0.025	0.035	0.374	0.0263
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	0.0155
DEC 31,82	DEC 30,82	*****	*****	*****	*****	*****	*****	0.0204
JAN 1,83	DEC 31,82	*****	*****	*****	*****	*****	*****	0.0437

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
JAN 2,82	JAN 1,82	830 800	**** ****	2	1.1	2	28079	2	1	74	C	
JAN 4,82	JAN 3,82	800 830	400 630	3	3.5	2	28080	2	1	100		
JAN 5,82	JAN 4,82	830 800	2200 200	3	10.3	2	28081	2	1	****	GE	
JAN 9,82	JAN 8,82	800 800	2200 200	2	4.1	2	28082	2	1	62		JH
JAN 11,82	JAN 10,82	800 830	1400 1800	2	18.6	2	28083	2	1	21		N
JAN 13,82	JAN 12,82	730 800	500 800	2	1.1	2	28084	2	1	58		
JAN 14,82	JAN 13,82	800 830	830 1100	2	1.1	2	28085	2	1	77	C	
JAN 16,82	JAN 15,82	800 830	2300 200	2	3.7	2	28086	2	1	57	C	
JAN 17,82	JAN 16,82	830 830	1200 1400	2	1.7	2	28087	2	1	21	C	N
JAN 23,82	JAN 22,82	830 830	400 830	2	15.5	2	28088	2	1	59	C	
JAN 24,82	JAN 23,82	830 800	830 1100	2	9.5	2	28089	2	1	44	C	N
JAN 29,82	JAN 28,82	800 800	100 300	2	3.7	2	28090	2	1	33	C	
JAN 30,82	JAN 29,82	800 800	400 630	2	4.1	2	28091	2	1	64	C	
FEB 1,82	JAN 31,82	800 800	2000 2430	2	15.3	2	28092	2	1	66	C	
FEB 4,82	FEB 3,82	800 730	1300 2300	2	14.1	2	28093	2	1	86		
FEB 8,82	FEB 6,82	730 730	1300 1700	2	5.3	2	28094	2	1	46	C	NZ
FEB 9,82	FEB 8,82	730 730	1200 1500	2	1.1	2	28095	2	1	66	C	
FEB 14,82	FEB 13,82	800 800	1900 2050	2	1.1	2	28096	2	1	58	C	
FEB 19,82	FEB 18,82	800 800	400 530	2	4.5	2	28097	2	1	88		
FEB 21,82	FEB 20,82	830 830	1900 2200	2	6.1	2	28098	2	1	91		
FEB 23,82	FEB 22,82	800 730	400 530	2	1.1	2	28099	2	1	69		
FEB 27,82	FEB 26,82	800 800	1300 1700	2	0.9	2	28100	2	1	60	C	
MAR 1,82	FEB 28,82	800 830	**** ****	2	2.1	2	28101	2	1	47		N
MAR 2,82	MAR 1,82	830 800	830 1500	2	3.9	2	28102	2	1	67	C	
MAR 5,82	MAR 4,82	830 815	1400 2000	2	11.5	2	28103	2	1	80		
MAR 7,82	MAR 6,82	830 845	2030 2200	2	2.5	2	28104	2	1	75		
MAR 9,82	MAR 8,82	800 815	530 815	2	1.5	2	28105	2	1	65	C	
MAR 10,82	MAR 9,82	845 845	845 1500	2	6.9	2	28106	2	1	80	C	
MAR 12,82	MAR 11,82	815 815	1000 1600	3	2.7	2	28107	2	1	****	CG	
MAR 13,82	MAR 12,82	815 845	300 630	1	17.5	2	28108	2	1	119	CD	
MAR 14,82	MAR 13,82	845 815	530 630	2	3.5	2	28109	2	1	10	C	N
MAR 17,82	MAR 16,82	815 815	1400 1630	2	12.3	2	28110	2	1	62		
MAR 22,82	MAR 21,82	815 815	1400 1700	1	10.4	2	28112	2	1	107		
MAR 26,82	MAR 25,82	730 800	1900 100	1	7.5	2	28113	2	1	72		
MAR 31,82	MAR 30,82	800 800	2100 2200	1	3.8	2	28114	2	1	129	C	N
APR 1,82	MAR 31,82	800 745	530 800	2	0.3	2	28115	2	1	193	C	N

ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : NITHGROVE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 2,82	JAN 1,82	135.0	39.1	*****	4.23	*****	4.25	0.78
JAN 4,82	JAN 3,82	575.0	35.2	4.03	4.09	0.1282	2.75	0.55
JAN 5,82	JAN 4,82	*****	*****	*****	*****	*****	*****	*****
JAN 9,82	JAN 8,82	420.0	15.8	4.52	4.90	0.1030	0.70	0.42
JAN 11,82	JAN 10,82	U 660.0	5.9	5.26	5.24	0.0480	0.35	0.03
JAN 13,82	JAN 12,82	105.0	*****	*****	4.10	*****	0.50	1.00
JAN 14,82	JAN 13,82	140.0	*****	*****	4.46	*****	0.85	0.31
JAN 16,82	JAN 15,82	350.0	40.8	3.92	4.07	0.1352	0.65	1.15
JAN 17,82	JAN 16,82	U 60.0	*****	*****	U 6.41	*****	U 2.00	U 1.02
JAN 23,82	JAN 22,82	1510.0	9.2	4.60	4.63	0.0620	0.40	0.17
JAN 24,82	JAN 23,82	U 695.0	33.0	4.12	4.21	0.1088	2.25	0.71
JAN 29,82	JAN 28,82	U 205.0	*****	*****	3.90	*****	3.95	1.46
JAN 30,82	JAN 29,82	435.0	20.4	4.37	4.31	0.0972	0.85	0.55
FEB 1,82	JAN 31,82	1660.0	10.3	4.67	4.65	0.0674	0.60	0.24
FEB 4,82	FEH 3,82	2000.0	19.6	4.34	4.42	0.0792	0.65	0.48
FEB 8,82	FEH 6,82	U 405.0	38.5	4.05	4.09	0.1220	1.15	1.16
FEB 9,82	FEH 8,82	120.0	41.5	*****	4.09	*****	1.60	1.30
FEB 14,82	FEH 13,82	105.0	*****	*****	4.55	*****	0.40	0.38
FEB 19,82	FEH 18,82	650.0	27.4	4.34	4.30	0.0984	1.55	0.71
FEB 21,82	FEH 20,82	920.0	19.0	4.52	4.42	0.0856	1.15	0.39
FEB 23,82	FEH 22,82	125.0	31.5	*****	4.30	*****	2.65	0.89
FEB 27,82	FEH 26,82	90.0	*****	*****	4.38	*****	0.95	1.18
MAR 1,82	FEH 28,82	U 165.0	*****	*****	4.24	*****	0.50	0.90
MAR 2,82	MAR 1,82	430.0	56.9	3.97	3.93	0.1648	3.00	1.34
MAR 5,82	MAR 4,82	1515.0	18.6	4.38	4.36	0.0840	0.40	0.53
MAR 7,82	MAR 6,82	310.0	43.3	*****	3.95	0.1400	0.80	1.15
MAR 9,82	MAR 8,82	160.0	*****	*****	4.06	*****	0.60	1.21
MAR 10,82	MAR 9,82	910.0	76.0	3.78	3.80	0.2138	U 5.20	U 1.41
MAR 12,82	MAR 11,82	295.0	58.0	*****	3.94	0.1618	4.75	0.88
MAR 13,82	MAR 12,82	3440.0	47.1	3.97	4.01	0.1300	4.00	0.61
MAR 14,82	MAR 13,82	U 60.0	*****	*****	U 6.41	*****	6.05	0.78
MAR 17,82	MAR 16,82	1265.0	12.6	4.58	4.60	0.0448	0.40	0.31
MAR 22,82	MAR 21,82	1835.0	25.8	4.26	4.28	0.0848	2.20	0.37
MAR 26,82	MAR 25,82	890.0	8.9	4.86	4.94	0.0396	0.40	0.23
MAR 31,82	MAR 30,82	805.0	47.7	4.01	4.02	0.1168	3.85	0.95
APR 1,82	MAR 31,82	95.0	46.2	*****	U 6.72	0.0416	7.85	1.99

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE LAB H+ MG/L
JAN 2+82	JAN 1,82	0.51	0.27	0.115	0.270	0.190	*****	0.0589
JAN 4+82	JAN 3,82	0.11	0.14	0.020	0.050	0.050	*****	0.0813
JAN 5+82	JAN 4,82	*****	*****	*****	*****	*****	*****	*****
JAN 9+82	JAN 8,82	0.31	U 0.83	0.020	U 0.900	U 0.330	U 0.232	0.0126
JAN 11+82	JAN 10,82	0.08	0.44	0.025	0.030	0.270	0.034	0.0058
JAN 13+82	JAN 12,82	*****	U 0.82	*****	*****	*****	0.086	0.0794
JAN 14+82	JAN 13,82	0.17	0.34	0.035	0.070	0.110	<T 0.002	0.0347
JAN 16+82	JAN 15,82	0.14	0.45	0.020	0.050	0.120	0.050	0.0851
JAN 17+82	JAN 16,82	*****	U 0.53	*****	*****	*****	*****	U 0.0004
JAN 23+82	JAN 22,82	0.09	0.06	0.015	0.030	0.020	0.014	0.0234
JAN 24+82	JAN 23,82	0.12	0.15	0.020	0.030	0.080	0.410	0.0617
JAN 29+82	JAN 28,82	0.41	0.39	0.050	0.045	0.145	0.960	0.1259
JAN 30+82	JAN 29,82	0.25	0.29	0.020	0.015	0.180	0.106	0.0490
FEB 1+82	JAN 31,82	0.06	0.06	<T 0.005	0.015	0.025	0.044	0.0224
FEB 4+82	FEB 3,82	0.04	0.20	0.005	0.020	0.060	0.042	0.0380
FEB 8+82	FEB 6,82	0.26	0.26	0.050	0.045	0.095	0.196	0.0813
FEB 9+82	FEB 8,82	0.64	0.63	0.125	0.245	0.345	0.214	0.0813
FEB 14+82	FEB 13,82	0.14	0.22	0.015	0.050	0.125	0.032	0.0282
FEB 19+82	FEB 18,82	0.27	0.26	0.035	0.085	0.180	0.222	0.0501
FEB 21+82	FEB 20,82	0.06	0.04	<T 0.005	0.015	0.030	0.208	0.0380
FEB 23+82	FEB 22,82	0.36	0.22	0.030	0.040	0.060	0.800	0.0501
FEB 27+82	FEB 26,82	*****	0.47	*****	*****	*****	0.182	0.0417
MAR 1+82	FEB 28,82	0.38	0.44	0.035	0.020	0.155	0.020	0.0575
MAR 2+82	MAR 1,82	0.26	0.47	0.030	0.050	0.105	0.570	0.1175
MAR 5+82	MAR 4,82	0.04	0.04	<T 0.005	0.010	0.020	0.018	0.0437
MAR 7+82	MAR 6,82	0.12	0.36	0.010	0.015	0.135	U 0.002	0.1122
MAR 9+82	MAR 8,82	0.19	0.40	0.045	0.035	0.225	0.004	0.0871
MAR 10+82	MAR 9,82	0.40	0.46	0.035	0.065	0.170	0.750	0.1585
MAR 12+82	MAR 11,82	0.11	0.21	0.010	0.025	0.040	0.830	0.1148
MAR 13+82	MAR 12,82	0.17	0.24	0.020	0.040	0.125	0.440	0.0977
MAR 14+82	MAR 13,82	*****	0.34	*****	*****	*****	*****	U 0.0004
MAR 17+82	MAR 16,82	0.15	0.03	0.010	<T 0.005	0.015	0.066	0.0251
MAR 22+82	MAR 21,82	0.30	0.07	0.025	0.055	0.030	0.216	0.0525
MAR 26+82	MAR 25,82	0.09	0.09	0.005	0.040	0.050	0.138	0.0115
MAR 31+82	MAR 30,82	0.75	0.38	0.090	0.030	0.180	0.318	0.0955
APR 1+82	MAR 31,82	*****	0.57	*****	*****	*****	*****	U 0.0002

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (M) 01-RAIN 02-NIPHER	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											04-ON HYDRO	FIELD OFFICE
APR 3,82	APR 2,82	800 800	600 800	1	2.7	2	28116	2	1	115	C	
APR 4,82	APR 3,82	800 800	500 800	1	17.4	1	28117	2	1	***	EFKI	
APR 5,82	APR 4,82	800 800	800 1200	2	***	*	28118	2	1	***	CFL	
APR 12,82	APR 10,82	815 900	1400 1700	2	10.3	2	28119	2	1	***	Y	
APR 13,82	APR 12,82	900 815	500 815	1	19.1	2	28120	2	1	88	Z	
APR 14,82	APR 13,82	815 815	900 1100	1	4.6	1	28121	2	1	64	C	
APR 17,82	APR 16,82	800 800	2057 2300	1	1.6	1	28122	2	1	78		
APR 18,82	APR 17,82	800 815	1900 2130	1	3.2	1	28123	2	1	***	CG	
APR 20,82	APR 19,82	830 830	*** ***	1	7.0	1	28124	2	1	102	N	
APR 22,82	APR 20,82	830 830	*** ***	4	***	*	28126	2	1	51		
MAY 3,82	MAY 2,82	800 845	1500 1600	1	0.8	1	28125	2	1	***	J	
MAY 17,82	MAY 16,82	730 730	1600 1800	1	0.9	1	28127	2	1	48	C	
MAY 19,82	MAY 18,82	730 730	800 900	1	1.4	1	28128	2	1	112	N	
MAY 20,82	MAY 19,82	730 730	900 1000	1	3.2	1	28129	2	1	83		
MAY 21,82	MAY 20,82	730 ***	1300 1430	1	4.0	1	28130	2	1	95	HM	
MAY 24,82	MAY 23,82	730 830	1400 1700	1	5.6	1	28131	2	1	99	C	
MAY 29,82	MAY 28,82	800 800	1300 1430	1	8.0	1	28132	2	1	87		
MAY 31,82	MAY 30,82	730 730	1400 1700	1	22.0	1	28133	2	1	106	C	
JUN 2,82	JUN 1,82	730 730	900 1100	1	7.0	1	28134	2	1	99		
JUN 11,82	JUN 10,82	730 700	1530 1700	1	41.0	1	28135	2	1	89		
JUN 13,82	JUN 12,82	730 730	500 530	1	1.2	1	28136	2	1	94		
JUN 14,82	JUN 13,82	730 730	1200 1300	1	2.1	1	28137	2	1	78	C	
JUN 16,82	JUN 15,82	730 700	1600 1800	1	31.6	1	28138	2	1	78		
JUN 19,82	JUN 18,82	730 730	100 730	1	16.4	1	28139	2	1	102	A	
JUN 20,82	JUN 19,82	730 800	730 1500	1	19.0	1	28140	2	1	***	EFKL	
JUN 21,82	JUN 20,82	800 730	2000 2200	1	8.4	1	28141	2	1	103	FJ	
JUN 23,82	JUN 22,82	800 730	1300 1400	1	9.0	1	28142	2	1	99	FJ	
JUN 26,82	JUN 25,82	700 600	700 900	1	7.0	1	28143	2	1	105	FJ	
JUL 1,82	JUN 30,82	730 730	2100 2130	1	2.4	1	28144	2	1	95	FJ	
JUL 5,82	JUL 4,82	800 800	1900 2000	1	1.6	1	28145	2	1	87	AC	
JUL 12,82	JUL 11,82	730 700	1300 1430	1	24.0	1	28146	2	1	68	C	
JUL 13,82	JUL 12,82	700 700	800 1000	1	2.4	1	28147	2	1	94	D	
JUL 18,82	JUL 17,82	730 800	1300 1400	1	6.6	1	28148	2	1	65	C	
JUL 19,82	JUL 18,82	800 800	1300 1430	1	18.8	1	28149	2	1	85		
JUL 28,82	JUL 27,82	730 800	2100 2230	1	7.6	1	28150	2	1	104		
JUL 29,82	JUL 28,82	800 700	1400 1530	1	6.0	1	28151	2	1	86		
JUL 31,82	JUL 30,82	700 700	1800 1900	1	3.6	1	28152	2	1	92	C	
AUG 3,82	AUG 2,82	700 700	715 1000	1	7.2	1	28153	2	1	90	HC	
AUG 4,82	AUG 3,82	700 700	1800 1900	1	2.6	1	28154	2	1	90	JHM	
AUG 9,82	AUG 8,82	730 730	1200 1430	*	3.6	1	28155	2	1	87	HC	
									43	N		

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHM:

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
APR 3,82	APR 2,82	200.0	11.6	U 4.93	U 5.19	0.0362	1.85	0.09
APR 4,82	APR 3,82	*****	*****	*****	*****	*****	*****	*****
APR 5,82	APR 4,82	650.0	13.2	U 5.55	U 5.82	0.0434	2.75	0.24
APR 12,82	APR 10,82	585.0	46.7	4.00	4.13	0.1250	4.85	0.63
APR 13,82	APR 12,82	785.0	38.4	4.08	4.22	0.0988	3.25	0.82
APR 14,82	APR 13,82	230.0	45.8	3.98	4.09	0.1196	4.40	0.68
APR 17,82	APR 16,82	U 25.0	*****	*****	3.98	0.1518	*****	*****
APR 18,82	APR 17,82	210.0	54.0	4.01	4.10	0.1220	6.25	0.85
APR 20,82	APR 19,82	230.0	36.2	4.22	4.40	0.0692	3.60	1.11
APR 22,82	APR 20,82	575.0	40.3	4.05	4.11	0.1066	3.65	0.52
MAY 3,82	MAY 2,82	U 25.0	*****	*****	4.16	0.1128	7.30	0.63
MAY 17,82	MAY 16,82	65.0	*****	*****	4.37	0.0924	5.85	0.29
MAY 19,82	MAY 18,82	75.0	*****	*****	U 4.71	U 0.0490	U 8.55	U 1.35
MAY 20,82	MAY 19,82	195.0	U 81.0	U 3.75	U 3.86	U 0.2060	U 10.00	U 1.85
MAY 21,82	MAY 20,82	255.0	15.3	4.57	4.67	0.0386	1.30	0.05
MAY 24,82	MAY 23,82	315.0	34.5	4.06	4.24	0.0954	3.00	0.44
MAY 29,82	MAY 28,82	545.0	34.2	4.12	4.14	0.0938	3.00	0.44
MAY 31,82	MAY 30,82	1410.0	29.3	4.10	4.18	0.0812	2.90	0.17
JUN 2,82	JUN 1,82	400.0	56.5	3.94	3.93	0.1406	5.80	0.73
JUN 11,82	JUN 10,82	2480.0	49.2	3.86	3.97	0.1348	5.00	0.40
JUN 13,82	JUN 12,82	60.0	*****	*****	3.69	0.2640	10.45	U 4.20
JUN 14,82	JUN 13,82	105.0	43.0	*****	4.21	0.0908	4.55	1.07
JUN 16,82	JUN 15,82	2085.0	29.9	U 4.65	4.17	0.0916	2.40	0.35
JUN 19,82	JUN 18,82	*****	*****	*****	*****	*****	*****	*****
JUN 20,82	JUN 19,82	1255.0	22.4	4.27	4.27	0.0682	1.90	0.23
JUN 21,82	JUN 20,82	535.0	17.8	4.49	4.54	0.0512	1.70	0.37
JUN 23,82	JUN 22,82	610.0	9.6	4.59	4.91	0.0342	0.90	0.10
JUN 26,82	JUN 25,82	430.0	27.2	4.18	4.26	0.0740	2.65	0.39
JUL 1,82	JUN 30,82	135.0	*****	*****	U 6.65	0.0302	U 1.65	0.12
JUL 5,82	JUL 4,82	70.0	*****	*****	U 5.90	0.0306	2.50	0.28
JUL 12,82	JUL 11,82	1460.0	37.8	4.04	4.19	0.0872	3.80	0.35
JUL 13,82	JUL 12,82	100.0	12.3	*****	5.12	0.0282	0.30	0.03
JUL 18,82	JUL 17,82	360.0	36.1	4.11	4.09	U 1.8900	4.15	0.46
JUL 19,82	JUL 18,82	1260.0	18.3	*****	4.32	U 1.1100	1.55	0.23
JUL 28,82	JUL 27,82	420.0	5.4	*****	5.30	0.0296	0.20	0.10
JUL 29,82	JUL 28,82	355.0	6.2	*****	U 6.03	0.0254	0.50	0.12
JUL 31,82	JUL 30,82	210.0	93.0	3.70	3.66	0.2220	8.40	1.60
AUG 3,82	AUG 2,82	420.0	U 14.5	4.63	U 5.91	U 0.0320	U 1.40	U 0.38
AUG 4,82	AUG 3,82	145.0	U 61.5	*****	4.60	0.0474	1.70	0.50
AUG 9,82	AUG 8,82	U 100.0	50.0	*****	3.94	0.1310	5.65	0.47

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

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REMOVAL DATE	EXPOSURE DATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N	FREE H+
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	LAB
APR 3,82	APR 2,82	0.34	U 0.48	U 0.045	U 0.275	U 0.280	*****	U 0.0065
APR 4,82	APR 3,82	*****	*****	*****	*****	*****	*****	*****
APR 5,82	APR 4,82	U 0.91	0.35	0.060	0.115	0.085	0.390	U 0.0015
APR 12,82	APR 10,82	0.10	0.11	0.010	0.090	0.025	0.750	0.0741
APR 13,82	APR 12,82	0.47	0.20	0.055	0.020	0.050	0.480	0.0603
APR 14,82	APR 13,82	0.21	0.20	0.025	0.045	0.035	*****	0.0813
APR 17,82	APR 16,82	*****	*****	*****	*****	*****	*****	0.1047
APR 18,82	APR 17,82	0.42	0.34	0.115	0.245	0.190	0.860	0.0794
APR 20,82	APR 19,82	0.95	0.20	U 0.185	U 0.190	0.070	0.630	0.0398
APR 22,82	APR 20,82	0.10	0.09	0.015	0.035	<W 0.005	0.410	0.0776
MAY 3,82	MAY 2,82	*****	0.58	*****	*****	*****	*****	0.0692
MAY 17,82	MAY 16,82	*****	0.35	*****	*****	*****	*****	0.0427
MAY 19,82	MAY 18,82	*****	U 0.41	*****	*****	*****	*****	U 0.0195
MAY 20,82	MAY 19,82	0.64	U 0.65	0.130	U 0.230	U 0.085	U 1.200	U 0.1380
MAY 21,82	MAY 20,82	0.06	0.07	0.005	U 0.240	0.040	0.058	0.0214
MAY 24,82	MAY 23,82	0.09	0.08	0.010	0.275	0.045	0.238	0.0575
MAY 29,82	MAY 28,82	0.07	0.19	0.010	0.210	<T 0.010	0.248	0.0724
MAY 31,82	MAY 30,82	0.02	0.02	<W 0.005	<T 0.015	<T 0.010	0.150	0.0661
JUN 2,82	JUN 1,82	0.09	0.18	0.010	U 0.240	0.045	0.750	0.1175
JUN 11,82	JUN 10,82	0.08	0.09	<W 0.005	0.045	0.025	0.356	0.1072
JUN 13,82	JUN 12,82	*****	U 1.10	*****	*****	*****	*****	0.2042
JUN 14,82	JUN 13,82	*****	0.27	*****	*****	*****	*****	0.0617
JUN 16,82	JUN 15,82	0.04	0.08	<W 0.005	0.035	0.015	0.246	0.0676
JUN 19,82	JUN 18,82	*****	*****	*****	*****	*****	*****	*****
JUN 20,82	JUN 19,82	0.02	0.02	<W 0.005	0.025	<T 0.005	0.200	0.0537
JUN 21,82	JUN 20,82	0.12	0.04	0.015	0.130	0.025	0.430	0.0288
JUN 23,82	JUN 22,82	0.05	U 0.09	<W 0.005	U 0.305	U 0.060	0.114	0.0123
JUN 26,82	JUN 25,82	0.07	0.06	0.010	0.065	0.035	0.520	0.0550
JUL 1,82	JUN 30,82	0.49	0.10	0.080	U 0.305	0.045	U 0.580	U 0.0002
JUL 5,82	JUL 4,82	*****	U 1.12	*****	*****	*****	*****	U 0.0013
JUL 12,82	JUL 11,82	0.19	0.10	0.040	0.030	0.050	0.410	0.0646
JUL 13,82	JUL 12,82	*****	0.05	*****	*****	*****	*****	0.0076
JUL 18,82	JUL 17,82	0.28	0.10	U 0.035	0.090	0.055	0.530	0.0813
JUL 19,82	JUL 18,82	0.04	0.07	0.010	U 0.075	0.020	0.180	0.0479
JUL 28,82	JUL 27,82	0.10	0.12	0.010	U 0.100	U 0.040	0.040	0.0050
JUL 29,82	JUL 28,82	U 0.42	0.22	U 0.055	U 0.160	U 0.110	0.090	U 0.0009
JUL 31,82	JUL 30,82	1.12	0.44	0.195	0.205	0.060	0.540	0.2188
AUG 3,82	AUG 2,82	0.37	0.14	0.055	0.165	0.035	U 0.920	U 0.0012
AUG 4,82	AUG 3,82	0.26	0.15	0.020	0.105	0.055	0.630	0.0251
AUG 9,82	AUG 8,82	*****	0.13	*****	*****	*****	0.380	0.1148

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR.	SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END HR.	END HR.									
AUG 15,82	AUG 14,82	700	730	740	900	1	1.2	1	28156	2	1	71
AUG 20,82	AUG 19,82	730	800	1130	1300	1	20.2	1	28157	2	1	103
AUG 23,82	AUG 22,82	800	800	1200	1600	1	23.8	1	28158	2	1	78
AUG 25,82	AUG 24,82	730	730	500	730	1	11.0	1	28159	2	1	104
AUG 26,82	AUG 25,82	730	730	730	900	1	2.0	1	28160	2	1	54
SEP 1,82	AUG 30,82	730	730	300	500	1	11.0	1	28161	2	1	96
SEP 2,82	SEP 1,82	730	730	2000	2130	1	10.4	1	28162	2	1	92
SEP 3,82	SEP 2,82	730	700	1630	1900	1	12.0	1	28163	2	1	101
SEP 4,82	SEP 3,82	700	730	710	930	1	16.4	1	28164	2	1	85
SEP 6,82	SEP 5,82	700	730	2200	2330	1	20.6	1	28165	2	1	95
SEP 15,82	SEP 13,82	730	730	630	830	1	4.6	1	28166	2	1	50
SEP 16,82	SEP 15,82	730	730	2240	2300	1	3.2	1	28167	2	1	60
SEP 18,82	SEP 11,82	730	730	2200	2430	1	19.2	1	28168	2	1	97
SEP 21,82	SEP 20,82	730	730	1530	1630	1	3.6	1	28169	2	1	95
SEP 25,82	SEP 24,82	730	800	600	800	1	3.0	1	28170	2	1	41
SEP 28,82	SEP 27,82	730	730	1030	1300	1	10.6	1	28171	2	1	100
OCT 2,82	OCT 1,82	800	730	815	1035	1	8.0	1	28172	2	1	**** G
OCT 4,82	OCT 3,82	730	730	830	930	1	1.3	1	28173	2	1	61
OCT 8,82	OCT 7,82	730	830	1100	1300	1	5.2	1	28174	2	1	96
OCT 9,82	OCT 8,82	730	730	1400	1600	1	9.2	1	28175	2	1	98
OCT 11,82	OCT 10,82	730	800	500	600	1	2.0	1	28176	2	1	81
OCT 12,82	OCT 11,82	700	700	1300	1400	1	1.0	1	28177	2	1	31
OCT 13,82	OCT 12,82	700	700	1700	1800	1	7.2	1	28178	2	1	96
OCT 14,82	OCT 13,82	700	700	1515	1615	1	8.2	1	28179	2	1	97
OCT 15,82	OCT 14,82	700	700	1800	2100	1	27.6	1	28180	2	1	94
OCT 17,82	OCT 16,82	730	800	900	1100	3	1.2	1	28181	2	1	58
OCT 21,82	OCT 20,82	730	730	1600	1700	1	10.2	1	28182	2	1	105
NOV 1,82	OCT 31,82	730	730	1930	2030	1	1.1	2	28183	2	1	99
NOV 2,82	NOV 1,82	730	730	2300	130	1	5.5	2	28184	2	1	110
NOV 3,82	NOV 2,82	730	730	730	1100	1	14.7	2	28185	2	1	99
NOV 4,82	NOV 3,82	730	730	1800	2000	1	6.1	2	28186	2	1	97
NOV 5,82	NOV 4,82	730	730	1100	1300	1	7.7	2	28187	2	1	85
NOV 6,82	NOV 5,82	730	730	1400	1700	2	16.1	2	28188	2	1	7
NOV 11,82	NOV 10,82	730	730	2200	2300	1	1.3	2	28189	2	1	168
NOV 12,82	NOV 11,82	730	730	2300	100	1	19.5	2	28190	2	1	48
NOV 15,82	NOV 14,82	730	730	100	300	2	14.9	2	28191	2	1	**** EFK
NOV 21,82	NOV 20,82	730	730	830	1200	1	19.7	2	28192	2	1	96
NOV 22,82	NOV 21,82	730	730	1300	1400	1	1.1	2	28193	2	1	63
NOV 23,82	NOV 22,82	710	730	815	1200	1	14.5	2	28194	2	1	100
NOV 29,82	NOV 28,82	730	730	530	730	1	8.3	2	28195	2	1	95

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STATION NAME : NITHGROVE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PHA.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
AUG 15,82	AUG 14,82	55.0	*****	*****	4.82	0.0378	1.05	0.15
AUG 20,82	AUG 19,82	1345.0	19.0	4.28	4.57	0.0478	3.15	0.36
AUG 23,82	AUG 22,82	1205.0	25.4	4.18	4.25	0.0756	2.35	0.36
AUG 25,82	AUG 24,82	735.0	6.6	4.77	4.94	0.0394	0.50	0.11
AUG 26,82	AUG 25,82	70.0	5.3	*****	6.06	0.0252	0.35	0.08
SEP 1,82	AUG 30,82	680.0	14.6	4.53	4.52	0.0538	1.40	0.19
SEP 2,82	SEP 1,82	615.0	35.0	4.08	4.03	0.1498	3.40	0.41
SEP 3,82	SEP 2,82	780.0	5.7	5.08	5.16	0.0392	0.55	0.10
SEP 4,82	SEP 3,82	895.0	2.3	5.26	5.35	0.0350	0.10	0.01
SEP 6,82	SEP 5,82	1265.0	12.2	4.62	4.57	0.0574	1.45	0.15
SEP 15,82	SEP 13,82	150.0	*****	4.21	4.19	0.0934	3.30	0.45
SEP 16,82	SEP 15,82	125.0	8.5	*****	4.99	0.0402	1.15	0.13
SEP 18,82	SEP 11,82	1200.0	13.1	4.50	4.48	0.0460	1.10	0.18
SEP 21,82	SEP 20,82	220.0	28.3	4.18	4.22	0.0786	3.05	0.60
SEP 25,82	SEP 24,82	U 80.0	*****	*****	3.80	0.1642	5.15	1.44
SEP 28,82	SEP 27,82	680.0	7.0	4.66	4.85	0.0334	0.60	0.10
OCT 2,82	OCT 1,82	486.0	*****	*****	4.13	0.0948	3.60	0.36
OCT 4,82	OCT 3,82	51.0	*****	*****	3.47	U 0.3708	16.00	3.01
OCT 8,82	OCT 7,82	323.0	126.0	3.54	3.51	0.3396	12.00	1.55
OCT 9,82	OCT 8,82	580.0	21.5	4.64	4.82	0.0500	3.15	0.69
OCT 11,82	OCT 10,82	105.0	*****	*****	4.20	0.0858	4.20	0.39
OCT 12,82	OCT 11,82	U 20.0	*****	*****	3.52	0.3480	*****	*****
OCT 13,82	OCT 12,82	445.0	25.5	4.29	4.13	0.0776	2.50	0.48
OCT 14,82	OCT 13,82	515.0	U 24.4	4.34	4.40	0.0740	2.05	0.62
OCT 15,82	OCT 14,82	1670.0	4.6	4.89	5.14	0.0272	0.40	0.04
OCT 17,82	OCT 16,82	45.0	*****	*****	6.74	0.0254	0.10	0.01
OCT 21,82	OCT 20,82	690.0	26.0	4.15	4.25	0.0764	2.75	0.33
NOV 1,82	OCT 31,82	70.0	*****	*****	4.03	0.1006	4.80	0.82
NOV 2,82	NOV 1,82	390.0	35.0	4.01	4.10	0.0974	2.45	0.67
NOV 3,82	NOV 2,82	940.0	27.5	4.14	4.15	0.0852	2.25	0.49
NOV 4,82	NOV 3,82	380.0	6.4	4.75	4.94	0.0406	U 0.05	0.16
NOV 5,82	NOV 4,82	420.0	12.9	4.45	4.52	0.0494	1.00	0.25
NOV 6,82	NOV 5,82	U 75.0	*****	*****	5.09	0.0332	1.85	0.42
NOV 11,82	NOV 10,82	140.0	*****	*****	3.89	0.1688	6.00	1.54
NOV 12,82	NOV 11,82	U 610.0	35.0	4.14	4.16	0.1130	3.15	0.71
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 21,82	NOV 20,82	1215.0	30.0	4.16	4.18	0.0994	2.75	0.39
NOV 22,82	NOV 21,82	45.0	*****	*****	6.25	U 0.0286	2.70	0.26
NOV 23,82	NOV 22,82	935.0	8.7	4.64	4.72	0.0512	0.60	0.18
NOV 29,82	NOV 28,82	510.0	20.2	4.25	4.32	0.0718	1.60	0.31

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM.

#07

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
AUG 15.82	AUG 14.82	*****	0.19	*****	*****	*****	*****	
AUG 20.82	AUG 19.82	0.36	0.06	0.070	0.140	<T 0.005	0.650	0.0151
AUG 23.82	AUG 22.82	0.08	0.06	0.020	0.080	<T 0.005	0.274	0.0269
AUG 25.82	AUG 24.82	0.05	0.04	0.015	0.050	<T 0.010	0.112	0.0562
AUG 26.82	AUG 25.82	*****	0.28	*****	*****	*****	*****	0.0115
SEP 1.82	AUG 30.82	0.06	0.06	0.020	0.065	<T 0.010	0.184	0.0009
SEP 2.82	SEP 1.82	0.07	0.10	<W 0.005	0.100	0.030	0.316	0.0302
SEP 3.82	SEP 2.82	0.04	0.08	<W 0.005	0.070	0.025	0.192	0.0933
SEP 4.82	SEP 3.82	0.01	0.06	<W 0.005	0.055	0.080	0.030	0.0069
SEP 6.82	SEP 5.82	0.05	0.07	0.010	0.235	0.025	0.170	0.0045
SEP 15.82	SEP 13.82	0.37	0.29	0.070	0.225	0.150	*****	0.0269
SEP 16.82	SEP 15.82	0.10	0.27	0.015	0.400	0.130	0.210	0.0646
SEP 18.82	SEP 11.82	0.06	0.05	0.010	0.005	0.010	0.090	0.0102
SEP 21.82	SEP 20.82	0.25	0.22	0.050	0.110	0.190	0.610	0.0331
SEP 25.82	SEP 24.82	*****	0.41	*****	*****	*****	0.603	
SEP 28.82	SEP 27.82	0.03	0.10	<W 0.005	0.040	0.015	0.720	0.1585
OCT 2.82	OCT 1.82	*****	0.21	*****	*****	*****	0.110	0.0141
OCT 4.82	OCT 3.82	*****	0.82	*****	*****	*****	*****	0.0741
OCT 8.82	OCT 7.82	0.49	0.61	0.075	0.210	0.200	*****	0.3388
OCT 9.82	OCT 8.82	0.67	0.09	0.075	0.070	0.030	1.260	0.3090
OCT 11.82	OCT 10.82	0.50	0.56	0.060	0.750	0.300	1.010	0.0151
OCT 12.82	OCT 11.82	*****	*****	*****	*****	*****	0.306	0.0631
OCT 13.82	OCT 12.82	0.12	0.16	0.005	0.170	0.035	*****	0.3020
OCT 14.82	OCT 13.82	0.31	0.13	0.050	0.065	0.020	0.480	0.0741
OCT 15.82	OCT 14.82	0.05	0.03	0.010	0.050	0.055	0.490	0.0398
OCT 17.82	OCT 16.82	*****	0.44	*****	*****	*****	0.064	0.0072
OCT 21.82	OCT 20.82	0.26	0.21	0.060	0.080	0.140	*****	0.0002
NOV 1.82	OCT 31.82	*****	U 0.36	*****	*****	*****	0.212	0.0562
NOV 2.82	NOV 1.82	0.13	0.10	0.015	0.090	0.050	*****	0.0933
NOV 3.82	NOV 2.82	0.10	0.11	0.015	0.045	0.045	0.272	0.0794
NOV 4.82	NOV 3.82	0.13	0.03	0.015	0.020	<W 0.005	0.306	0.0708
NOV 5.82	NOV 4.82	0.14	0.02	0.020	U 0.140	U 0.160	0.032	0.0115
NOV 6.82	NOV 5.82	*****	0.19	*****	*****	*****	0.126	0.0302
NOV 11.82	NOV 10.82	0.63	0.70	0.115	0.370	0.375	0.410	0.0081
NOV 12.82	NOV 11.82	0.14	0.21	0.020	0.050	0.110	0.930	0.1288
NOV 15.82	NOV 14.82	*****	*****	*****	*****	*****	0.560	0.0692
NOV 21.82	NOV 20.82	0.04	0.12	<W 0.005	0.010	0.030	*****	*****
NOV 22.82	NOV 21.82	*****	U 0.59	*****	*****	*****	0.224	0.0661
NOV 23.82	NOV 22.82	0.03	0.05	<W 0.005	0.010	0.015	0.070	0.0006
NOV 29.82	NOV 28.82	0.07	0.14	<W 0.005	0.080	0.060	0.138	0.0191
								0.0479

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM

#07

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD OFFICE	
											ENCY	(%)
NOV 30,82	NOV 29,82	730	730	1630 1830	1	13.9	2	28196	2	1	90	
DEC 1,82	NOV 30,82	730	730	730 930	1	1.3	2	28197	2	1	96	
DEC 5,82	DEC 2,82	730	730	1700 1000	1	18.1	2	28198	2	1	104	Z
DEC 6,82	DEC 5,82	730	730	1800 2100	1	33.9	2	28199	2	1	108	
DEC 8,82	DEC 7,82	730	730	900 1000	2	0.5	2	28200	2	1	202	N
DEC 9,82	DEC 8,82	730	730	1600 1800	*	3.3	2	28201	2	1	****	EK
DEC 11,82	DEC 10,82	730	730	1600 1900	2	5.9	2	28202	2	1	****	EK
DEC 16,82	DEC 15,82	730	730	1730 1900	1	14.9	2	28203	2	1	36	N
DEC 17,82	DEC 16,82	730	730	730 900	2	2.5	2	28204	2	1	21	C
DEC 19,82	DEC 18,82	730	730	900 100	2	0.7	2	28205	2	1	****	EK
DEC 21,82	DEC 20,82	730	730	1000 1100	2	1.7	2	28206	2	1	****	EK
DEC 23,82	DEC 22,82	730	730	900 1200	2	3.1	2	28207	2	1	****	EK
DEC 24,82	DEC 23,82	730	800	1700 2100	1	10.7	2	28208	2	1	98	
DEC 25,82	DEC 24,82	800	900	1700 2000	1	20.1	2	28209	2	1	94	
DEC 26,82	DEC 25,82	900	800	2100 2300	1	3.3	2	28210	2	1	108	
DEC 28,82	DEC 27,82	800	800	600 800	1	****	2	28211	2	1	****	
DEC 29,82	DEC 28,82	800	830	1430 1700	1	12.3	2	28212	2	1	95	
DEC 30,82	DEC 29,82	830	800	1300 1400	2	1.5	2	28213	2	1	20	C
JAN 1,83	DEC 31,82	830	830	1200 1400	2	2.9	2	28214	2	1	10	C

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM #07

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
NOV 30,82	NOV 29,82	805.0	16.6	4.36	4.48	0.0570	1.45	0.19
DEC 1,82	NOV 30,82	80.0	*****	*****	3.94	0.1368	4.35	1.35
DEC 5,82	DEC 2,82	1215.0	22.9	4.20	4.25	0.0780	1.95	0.24
DEC 6,82	DEC 5,82	2355.0	13.3	4.44	4.43	0.0566	1.10	0.13
DEC 8,82	DEC 7,82	65.0	*****	*****	4.35	0.0628	1.65	0.52
DEC 9,82	DEC 8,82	*****	*****	*****	*****	*****	*****	*****
DEC 11,82	DEC 10,82	*****	*****	*****	U 3.57	U 0.3000	U 9.60	U 2.00
DEC 16,82	DEC 15,82	U 350.0	*****	U 4.76	U 4.70	U 0.0466	1.05	0.20
DEC 17,82	DEC 16,82	U 35.0	*****	*****	U 6.80	U 0.0284	*****	*****
DEC 19,82	DEC 18,82	*****	*****	*****	*****	*****	*****	*****
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	*****
DEC 23,82	DEC 22,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	673.0	43.3	4.04	3.99	0.1250	4.15	0.62
DEC 25,82	DEC 24,82	1222.0	28.4	4.20	4.28	0.0884	2.30	0.40
DEC 26,82	DEC 25,82	229.0	*****	U 4.80	4.74	0.0498	1.65	0.21
DEC 28,82	DEC 27,82	366.0	28.0	4.22	4.26	0.0834	2.70	0.32
DEC 29,82	DEC 28,82	750.0	18.8	4.48	4.43	0.0614	2.15	0.28
DEC 30,82	DEC 29,82	U 20.0	*****	*****	U 6.82	U 0.0784	*****	*****
JAN 1,83	DEC 31,82	U 20.0	*****	*****	U 6.25	U 0.0214	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM:

#07

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REMOVAL DATE	EXPOSURE DATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N	FREE H+ LAB
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
NOV 30,82	NOV 29,82	0.08	0.12	<W 0.005	0.070	0.065	0.092	0.0331
DEC 1,82	NOV 30,82	*****	0.58	*****	*****	0.770	0.1148	
DEC 5,82	DEC 2,82	0.09	0.18	0.005	0.020	0.100	0.110	0.0562
DEC 6,82	DEC 5,82	0.03	0.08	0.005	0.010	0.040	0.076	0.0372
DEC 8,82	DEC 7,82	*****	0.13	*****	0.070	0.065	*****	0.0447
DEC 9,82	DEC 8,82	*****	*****	*****	*****	*****	*****	*****
DEC 11,82	DEC 10,82	*****	U 0.91	*****	*****	*****	*****	U 0.2692
DEC 16,82	DEC 15,82	U 0.17	0.16	U 0.030	U 0.045	U 0.220	0.032	U 0.0200
DEC 17,82	DEC 16,82	*****	*****	*****	*****	*****	*****	U 0.0002
DEC 19,82	DEC 18,82	*****	*****	*****	*****	*****	*****	*****
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	*****
DEC 23,82	DEC 22,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	0.22	0.18	0.040	0.070	0.090	0.410	0.1023
DEC 25,82	DEC 24,82	0.05	0.22	0.020	0.050	0.100	0.246	0.0525
DEC 26,82	DEC 25,82	0.19	0.14	0.030	0.095	0.085	0.344	0.0182
DEC 28,82	DEC 27,82	0.07	U 0.46	U 0.045	U 0.080	U 0.275	0.140	0.0550
DEC 29,82	DEC 28,82	0.16	0.13	0.035	0.035	0.060	0.350	0.0372
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	U 0.0002
JAN 1,83	DEC 31,82	*****	*****	*****	*****	*****	*****	U 0.0006

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/SES

#05

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
											04-ON HYDRO	
JAN 4,82	JAN 3,82	830 830	500 800	4	5.1	2	28684	2	1	54	C	
JAN 5,82	JAN 4,82	830 830	900 1100	4	7.1	2	28685	2	1	76	C	
JAN 7,82	JAN 6,82	830 830	1000 1400	2	2.1	2	28686	2	1	31	N	
JAN 9,82	JAN 8,82	830 830	1400 1800	2	4.1	2	28687	2	1	42	N	
JAN 13,82	JAN 12,82	830 830	500 830	2	2.1	2	28688	2	1	47	C	
JAN 14,82	JAN 13,82	830 830	830 1600	2	3.1	2	28689	2	1	42	N	
JAN 16,82	JAN 15,82	830 830	300 830	2	3.1	2	28690	2	1	65	C	
JAN 17,82	JAN 16,82	830 830	830 1100	2	3.1	2	28691	2	1	33	C	
JAN 18,82	JAN 17,82	830 830	1600 2200	2	1.1	2	28692	2	1	41	C	
JAN 23,82	JAN 22,82	830 830	400 830	3	10.1	2	28693	2	1	68	C	
JAN 24,82	JAN 23,82	830 830	830 1000	3	4.1	2	28694	2	1	49	C	
JAN 29,82	JAN 28,82	830 830	1600 1700	2	1.1	2	28695	2	1	19	C	
JAN 30,82	JAN 29,82	830 830	600 830	2	5.1	2	28696	2	1	66	C	
JAN 31,82	JAN 30,82	830 830	830 1230	2	4.1	2	28697	2	1	66		
FEB 1,82	JAN 31,82	830 830	1400 2400	2	17.1	2	28698	2	1	54		
FEB 4,82	FEB 3,82	830 830	1200 200	2	15.1	2	28699	2	1	62		
FEB 6,82	FEB 5,82	830 830	1500 2300	2	5.1	2	28700	2	1	89		
FEB 10,82	FEB 9,82	830 830	200 500	2	2.1	2	28701	2	1	65	C	
FEB 19,82	FEB 18,82	830 830	200 800	3	6.7	2	28702	2	1	76		
FEB 21,82	FEB 20,82	830 830	1600 2400	3	5.9	2	28703	2	1	83		
MAR 2,82	MAR 1,82	830 830	1600 1900	2	1.5	2	28704	2	1	42	NH	
MAR 5,82	MAR 4,82	830 830	1400 2400	2	16.1	2	28705	2	1	64		
MAR 7,82	MAR 6,82	830 830	2000 2400	2	2.7	2	28706	2	1	91		
MAR 9,82	MAR 8,82	830 830	300 830	2	3.5	2	28707	2	1	35	N	
MAR 11,82	MAR 10,82	830 830	1400 1600	2	2.7	2	28708	2	1	63		
MAR 12,82	MAR 11,82	830 830	1000 1400	1	1.5	2	28709	2	1	101		
MAR 13,82	MAR 12,82	830 830	600 800	1	9.9	2	28710	2	1	98		
MAR 17,82	MAR 16,82	830 830	1700 2100	3	15.7	2	28711	2	1	68		
MAR 19,82	MAR 18,82	830 830	1600 2100	3	1.9	2	28712	2	1	94		
MAR 22,82	MAR 21,82	830 830	1400 1900	3	10.1	2	28713	2	1	94		
MAR 26,82	MAR 25,82	830 830	1800 830	2	10.1	2	28714	2	1	67		
MAR 27,82	MAR 26,82	830 830	830 1000	2	0.4	2	28715	2	1	38	C	
MAR 31,82	MAR 30,82	830 830	300 600	1	2.6	2	28716	2	1	126		
APR 3,82	APR 2,82	830 830	400 830	1	7.5	2	28717	2	1	101		
APR 4,82	APR 3,82	830 830	1600 1800	4	8.1	2	28718	2	1	**** EG		
APR 11,82	APR 10,82	830 830	600 830	2	2.3	2	28719	2	1	91	C	
APR 12,82	APR 11,82	830 830	830 1230	2	3.1	2	28720	2	1	89		
APR 13,82	APR 12,82	830 830	400 600	1	6.1	2	28721	2	1	105	C	
APR 14,82	APR 13,82	830 830	900 1200	1	2.6	2	28722	2	1	124	N	
APR 17,82	APR 16,82	830 830	2130 2300	1	3.7	2	28723	2	1	112	C	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/SES

#05

PAGE : ?

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 4,82	JAN 3,82	455.0	36.5	4.18	4.16	0.1178	3.15	0.73
JAN 5,82	JAN 4,82	890.0	16.0	4.54	4.53	0.0692	1.50	0.27
JAN 7,82	JAN 6,82	U 110.0	*****	*****	4.04	*****	4.60	1.17
JAN 9,82	JAN 8,82	U 285.0	13.3	*****	4.64	0.0648	0.70	0.49
JAN 13,82	JAN 12,82	U 165.0	*****	*****	4.16	*****	0.50	0.73
JAN 14,82	JAN 13,82	U 215.0	16.5	*****	4.46	*****	0.50	0.38
JAN 16,82	JAN 15,82	335.0	41.8	*****	4.05	0.1252	1.55	1.17
JAN 17,82	JAN 16,82	U 170.0	24.0	*****	4.23	*****	0.75	0.71
JAN 18,82	JAN 17,82	U 75.0	*****	*****	U 4.81	*****	1.40	0.54
JAN 23,82	JAN 22,82	1135.0	13.7	4.59	4.58	0.0574	0.90	0.25
JAN 24,82	JAN 23,82	U 330.0	31.5	*****	4.21	0.1056	3.10	0.52
JAN 29,82	JAN 28,82	U 35.0	*****	*****	U 4.77	*****	5.65	U 2.29
JAN 30,82	JAN 29,82	555.0	23.5	4.52	4.40	0.0800	0.90	0.84
JAN 31,82	JAN 30,82	450.0	14.9	4.53	4.49	0.0666	0.65	0.36
FEB 1,82	JAN 31,82	1540.0	11.7	4.59	4.56	0.0578	0.60	0.22
FEB 4,82	FER 3,82	1535.0	15.5	*****	4.48	0.0712	0.75	0.39
FEB 6,82	FER 5,82	750.0	18.4	4.42	4.37	0.0744	0.45	0.54
FEB 10,82	FER 9,82	225.0	26.9	*****	4.30	*****	0.85	1.05
FEB 19,82	FER 18,82	845.0	31.0	4.28	4.24	0.1072	2.25	0.79
FEB 21,82	FER 20,82	805.0	U 44.8	4.04	4.02	U 0.1384	U 2.80	U 0.84
MAR 2,82	MAR 1,82	U 105.0	*****	*****	U 5.06	*****	7.05	1.68
MAR 5,82	MAR 4,82	1700.0	31.0	4.25	4.16	0.1030	2.00	0.66
MAR 7,82	MAR 6,82	405.0	30.6	4.21	4.15	0.1094	0.70	0.89
MAR 9,82	MAR 8,82	U 205.0	41.2	*****	4.04	*****	0.75	1.33
MAR 11,82	MAR 10,82	280.0	167.0	*****	3.50	0.4304	11.30	3.46
MAR 12,82	MAR 11,82	250.0	U 172.0	*****	U 3.49	U 0.4318	14.00	2.77
MAR 13,82	MAR 12,82	1595.0	62.0	3.86	3.94	0.1522	5.45	0.77
MAR 17,82	MAR 16,82	1765.0	13.8	4.53	4.69	0.0452	1.05	0.34
MAR 19,82	MAR 18,82	295.0	155.0	*****	3.48	0.4222	10.20	2.63
MAR 22,82	MAR 21,82	1560.0	41.7	4.08	4.11	0.1142	3.50	0.76
MAR 26,82	MAR 25,82	1120.0	13.5	4.67	4.66	0.0464	1.05	0.37
MAR 27,82	MAR 26,82	U 25.0	*****	*****	U 5.90	*****	*****	*****
MAR 31,82	MAR 30,82	540.0	32.8	U 4.36	U 4.64	0.0586	4.70	1.12
APR 3,82	APR 2,82	1250.0	U 8.0	U 4.94	U 5.22	0.0284	1.35	0.11
APR 4,82	APR 3,82	*****	*****	*****	*****	*****	*****	*****
APR 11,82	APR 10,82	345.0	44.0	U 4.12	U 4.21	U 0.0902	4.45	1.18
APR 12,82	APR 11,82	455.0	63.5	3.87	3.96	0.1526	5.35	1.03
APR 13,82	APR 12,82	1055.0	61.0	3.99	4.10	0.1208	U 6.90	U 1.57
APR 14,82	APR 13,82	530.0	43.2	4.05	4.18	0.0976	4.80	0.62
APR 17,82	APR 16,82	685.0	78.5	3.81	3.93	0.1748	7.90	1.80

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 4-82	JAN 3-82	U 0.65	U 0.61	0.020	0.110	U 0.410	0.410	0.0692
JAN 5-82	JAN 4-82	0.41	0.08	0.020	0.030	0.050	0.082	0.0295
JAN 7-82	JAN 6-82	1.06	0.38	0.080	0.550	0.180	0.680	0.0912
JAN 9-82	JAN 8-82	0.54	0.20	0.035	0.020	0.090	0.038	0.0229
JAN 13-82	JAN 12-82	0.31	U 1.10	0.020	0.030	0.140	0.014	0.0692
JAN 14-82	JAN 13-82	0.05	0.28	<T 0.005	0.035	0.040	0.016	0.0347
JAN 16-82	JAN 15-82	0.67	0.60	0.045	0.115	0.205	0.100	0.0891
JAN 17-82	JAN 16-82	0.42	0.29	0.025	0.030	0.080	0.020	0.0589
JAN 18-82	JAN 17-82	*****	U 0.70	*****	*****	*****	0.050	U 0.0155
JAN 23-82	JAN 22-82	0.19	0.13	<T 0.005	0.030	0.080	0.024	0.0263
JAN 24-82	JAN 23-82	0.53	0.22	0.050	0.060	0.125	0.246	0.0617
JAN 29-82	JAN 28-82	*****	U 1.70	*****	*****	*****	*****	U 0.0170
JAN 30-82	JAN 29-82	0.71	0.40	0.050	0.045	0.300	0.060	0.0398
JAN 31-82	JAN 30-82	0.11	0.11	<T 0.005	0.005	0.030	0.048	0.0324
FEB 1-82	JAN 31-82	0.04	0.04	<T 0.005	0.005	0.010	0.008	0.0275
FEB 4-82	FEB 3-82	0.30	0.22	0.005	0.015	0.105	0.024	0.0331
FEB 6-82	FEB 5-82	0.04	0.14	<T 0.005	<T 0.005	0.075	0.016	0.0427
FEB 10-82	FEB 9-82	U 1.06	U 0.50	0.065	0.045	0.250	0.048	0.0501
FEB 19-82	FEB 18-82	0.62	0.25	0.040	0.040	0.205	0.158	0.0575
FEB 21-82	FEB 20-82	U 0.15	0.22	0.005	0.015	0.030	0.326	0.0955
MAR 2-82	MAR 1-82	U 4.49	U 1.44	U 0.270	0.095	U 0.655	U 1.640	U 0.0087
MAR 5-82	MAR 4-82	0.30	0.11	0.005	0.015	0.065	0.230	0.0692
MAR 7-82	MAR 6-82	0.24	0.35	0.010	0.010	0.175	0.040	0.0708
MAR 9-82	MAR 8-82	0.46	U 0.56	0.065	0.010	0.305	0.028	0.0912
MAR 11-82	MAR 10-82	1.07	1.12	0.110	0.095	0.495	1.510	0.3162
MAR 12-82	MAR 11-82	U 0.84	U 0.82	U 0.060	U 0.080	U 0.265	U 1.730	U 0.3236
MAR 13-82	MAR 12-82	0.36	0.45	0.045	0.045	0.255	0.520	0.1148
MAR 17-82	MAR 16-82	0.45	0.04	0.015	0.005	0.025	0.134	0.0204
MAR 19-82	MAR 18-82	0.58	0.52	0.030	0.020	0.115	0.600	0.3311
MAR 22-82	MAR 21-82	0.62	0.14	0.045	0.025	0.090	0.350	0.0776
MAR 26-82	MAR 25-82	0.37	0.08	0.040	0.015	0.060	0.142	0.0219
MAR 27-82	MAR 26-82	*****	*****	*****	*****	*****	*****	U 0.0013
MAR 31-82	MAR 30-82	U 1.76	U 0.62	U 0.190	0.070	0.385	U 0.710	U 0.0229
APR 3-82	APR 2-82	0.45	0.02	0.015	0.020	0.035	0.106	U 0.0060
APR 4-82	APR 3-82	*****	*****	*****	*****	*****	*****	*****
APR 11-82	APR 10-82	U 1.20	0.23	0.090	0.025	0.135	0.640	U 0.0617
APR 12-82	APR 11-82	0.06	0.06	0.005	<T 0.005	0.015	0.840	0.1095
APR 13-82	APR 12-82	U 1.50	0.38	U 0.175	U 0.140	0.125	U 1.220	0.0794
APR 14-82	APR 13-82	0.35	0.17	0.030	0.025	0.035	0.740	0.0561
APR 17-82	APR 16-82	U 1.96	U 0.50	U 0.190	0.115	0.200	0.830	0.1175

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ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP	SAMPLE	GAUGE	GAUGE	SAMPLE	PROJECT	SUBPROJECT	SAMPLER	COMMENTS
		START/END	HR.									
					01-RAIN				02-APIOS	01-MOE		
					02-SNOW				03-SPECIAL	03-AES		
					03-COMP/04-ICE				04-ON HYDRO			
APR 18,82	APR 17,82	830	830	900 1000	4	4.1	2	28724	2	1	107	C
APR 20,82	APR 19,82	830	830	600 830	1	7.9	2	28725	2	1	96	C
APR 21,82	APR 20,82	830	830	830 1230	4	7.3	2	28726	2	1	104	
APR 27,82	APR 26,82	930	930	2200 2400	1	2.0	1	28727	2	1	94	C

ONTARIO MINISTRY OF THE ENVIRONMENT  
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APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
APR 18,82	APR 17,82	725.0	52.2	4.00	4.14	0.1168	6.50	0.71
APR 20,82	APR 19,82	1255.0	41.0	4.15	4.28	0.0896	4.30	1.11
APR 21,82	APR 20,82	1245.0	35.3	4.11	4.22	0.0972	3.65	0.36
APR 27,82	APR 26,82	310.0	68.2	U 6.64	U 7.24	U 0.0348	U 8.75	U 1.84

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/SES #05 PAGE : 6

REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
APR 18,82	APR 17,82	0.65	0.36	0.155	0.095	0.215	0.810	0.0724
APR 20,82	APR 19,82	U 1.08	0.22	0.130	0.040	0.070	0.640	0.0525
APR 21,82	APR 20,82	0.20	0.10	0.020	0.020	0.035	0.310	0.0603
APR 27,82	APR 26,82	U 6.09	U 0.66	U 1.050	U 0.360	U 0.275	U 1.590	U 0.0001

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER
MAY 6,82	MAY 5,82	830 830	500 600	1	2.2	1	28728	2	1	92	C	
MAY 8,82	MAY 7,82	830 830	500 830	1	7.0	1	28729	2	1	95	C	
MAY 9,82	MAY 8,82	830 830	830 1300	1	2.0	1	28730	2	1	54	C	
MAY 20,82	MAY 19,82	830 830	1600 1750	1	8.0	1	28731	2	1	98	C	
MAY 23,82	MAY 22,82	830 830	1900 2100	1	2.4	1	28732	2	1	97	C	
MAY 24,82	MAY 23,82	830 830	1100 1400	1	10.0	1	28733	2	1	93		
MAY 28,82	MAY 27,82	830 830	400 500	1	4.0	1	28734	2	1	81		
MAY 29,82	MAY 28,82	830 830	915 1045	1	12.6	1	28735	2	1	101		
MAY 31,82	MAY 30,82	830 830	1000 1200	1	6.0	1	28736	2	1	87	C	
JUN 2,82	JUN 1,82	830 830	845 1000	1	8.0	1	28737	2	1	92		
JUN 6,82	JUN 5,82	830 830	1900 2200	1	8.4	1	28738	2	1	84	C	
JUN 7,82	JUN 6,82	830 830	1900 2000	1	1.8	1	28739	2	1	43	N	
JUN 11,82	JUN 10,82	830 830	1400 1900	1	14.4	1	28740	2	1	102		
JUN 14,82	JUN 13,82	830 830	1300 1500	1	1.3	1	28741	2	1	90		
JUN 15,82	JUN 14,82	830 830	700 730	1	1.4	1	28742	2	1	94		
JUN 16,82	JUN 15,82	830 830	1400 2200	1	35.5	1	28743	2	1	101		
JUN 19,82	JUN 18,82	830 830	2200 2400	1	8.2	1	28744	2	1	101		
JUN 20,82	JUN 19,82	830 830	930 1500	1	6.7	1	28745	2	1	105		
JUN 21,82	JUN 20,82	830 830	2230 2400	1	10.0	1	28746	2	1	98		
JUN 22,82	JUN 21,82	830 830	1445 1530	1	1.1	1	28747	2	1	77		
JUN 23,82	JUN 22,82	830 830	1000 1200	1	4.3	1	28748	2	1	99		
JUN 26,82	JUN 25,82	830 830	900 1100	1	2.1	1	28749	2	1	81	B	
JUL 8,82	JUL 7,82	830 830	1400 1430	1	0.3	1	28750	2	1	103	C	
JUL 12,82	JUL 11,82	830 830	2200 2230	1	0.2	1	28751	2	1	116		
JUL 18,82	JUL 17,82	830 830	1400 1600	1	6.0	1	28752	2	1	***	EIK	
JUL 19,82	JUL 18,82	830 830	1800 1930	1	6.2	1	28753	2	1	103		
JUL 28,82	JUL 27,82	830 830	2000 2300	1	16.8	1	28754	2	1	101		
JUL 29,82	JUL 28,82	830 830	1515 1545	1	2.3	1	28755	2	1	88	HCM	
JUL 31,82	JUL 30,82	830 830	2200 2400	1	10.0	1	28756	2	1	85	A	
AUG 3,82	AUG 2,82	830 830	1000 1300	1	6.4	1	28757	2	1	97	A	
AUG 9,82	AUG 8,82	830 830	1200 1800	1	8.3	1	28758	2	1	96		
AUG 14,82	AUG 13,82	830 830	1445 1500	1	1.0	1	28759	2	1	70		
AUG 20,82	AUG 19,82	830 830	1815 1845	1	20.5	1	28760	2	1	103		
AUG 21,82	AUG 20,82	830 830	730 800	1	1.0	1	28761	2	1	31		
AUG 23,82	AUG 22,82	830 830	1500 1900	1	22.0	1	28762	2	1	102		
AUG 25,82	AUG 24,82	830 830	400 830	1	30.0	1	28763	2	1	104	A	
AUG 26,82	AUG 25,82	830 830	830 1030	1	2.1	1	28764	2	1	85	HM	
AUG 27,82	AUG 26,82	830 830	1030 1045	1	0.4	1	28765	2	1	77		
AUG 28,82	AUG 27,82	830 830	1200 1230	1	2.3	1	28766	2	1	105		
AUG 29,82	AUG 28,82	830 830	1300 1330	1	2.7	1	28767	2	1	112	JHCM	

ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : RAVEN LAKE/DAILY/AEROCHEM #05

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 6,82	MAY 5,82	130.0	87.0	*****	U 7.00	U 0.0532	U 19.10	U 2.70
MAY 8,82	MAY 7,82	430.0	8.6	4.75	U 5.15	U 0.0410	0.85	0.23
MAY 9,82	MAY 8,82	70.0	*****	*****	5.02	0.0474	1.10	0.19
MAY 20,82	MAY 19,82	505.0	30.0	4.24	4.43	0.0716	3.60	0.77
MAY 23,82	MAY 22,82	150.0	24.1	*****	4.54	0.0618	3.15	0.35
MAY 24,82	MAY 23,82	600.0	33.9	4.05	4.22	0.0960	3.30	0.38
MAY 28,82	MAY 27,82	210.0	60.1	3.84	3.92	0.1594	5.55	0.77
MAY 29,82	MAY 28,82	820.0	29.8	4.15	4.28	0.0852	3.20	0.26
MAY 31,82	MAY 30,82	335.0	81.2	3.73	3.71	0.2006	7.40	1.08
JUN 2,82	JUN 1,82	475.0	58.8	3.86	3.82	0.1490	4.85	0.77
JUN 6,82	JUN 5,82	455.0	11.6	4.44	4.59	0.0356	0.85	0.20
JUN 7,82	JUN 6,82	U 50.0	*****	*****	U 5.86	U 0.0200	0.75	0.16
JUN 11,82	JUN 10,82	950.0	90.1	3.70	3.63	0.2360	9.40	0.75
JUN 14,82	JUN 13,82	75.0	*****	*****	4.09	0.1134	7.60	1.59
JUN 15,82	JUN 14,82	85.0	*****	*****	4.27	0.1002	8.90	2.02
JUN 16,82	JUN 15,82	2315.0	49.6	3.94	3.97	0.1260	4.15	0.50
JUN 19,82	JUN 18,82	535.0	30.0	4.21	4.28	0.0730	2.80	0.61
JUN 20,82	JUN 19,82	455.0	43.8	3.98	4.00	0.1198	3.50	0.58
JUN 21,82	JUN 20,82	630.0	22.4	4.33	4.40	0.0656	2.25	0.41
JUN 22,82	JUN 21,82	55.0	*****	*****	4.76	0.0382	1.15	0.20
JUN 23,82	JUN 22,82	275.0	10.5	4.65	4.88	0.0360	0.90	0.23
JUN 26,82	JUN 25,82	110.0	*****	*****	4.20	0.0998	5.00	0.73
JUL 8,82	JUL 7,82	20.0	*****	*****	U 6.73	U 0.0218	*****	*****
JUL 12,82	JUL 11,82	15.0	*****	*****	U 3.66	0.2460	*****	*****
JUL 18,82	JUL 17,82	*****	*****	*****	*****	*****	*****	*****
JUL 19,82	JUL 18,82	410.0	30.3	4.08	4.18	0.0792	2.90	0.48
JUL 28,82	JUL 27,82	1090.0	11.0	4.60	4.61	0.0372	0.85	0.17
JUL 29,82	JUL 28,82	130.0	4.2	*****	U 5.58	0.0194	0.15	0.05
JUL 31,82	JUL 30,82	550.0	51.0	3.90	3.93	0.1332	4.50	0.81
AUG 3,82	AUG 2,82	400.0	7.1	4.60	5.37	0.0232	0.55	0.15
AUG 9,82	AUG 8,82	515.0	54.0	3.90	3.90	0.1384	5.65	0.52
AUG 14,82	AUG 13,82	45.0	*****	*****	U 5.44	U 0.0204	U 0.30	U 0.09
AUG 20,82	AUG 19,82	1360.0	20.0	4.45	4.69	0.0564	3.85	0.43
AUG 21,82	AUG 20,82	U 20.0	*****	*****	4.28	0.0722	*****	*****
AUG 23,82	AUG 22,82	1450.0	29.5	4.12	4.18	0.0908	2.70	0.39
AUG 25,82	AUG 24,82	2005.0	15.5	4.37	4.48	0.0580	1.40	0.16
AUG 26,82	AUG 25,82	115.0	*****	*****	4.96	0.0374	0.20	0.05
AUG 27,82	AUG 26,82	20.0	*****	*****	U 6.01	0.0364	*****	*****
AUG 28,82	AUG 27,82	155.0	*****	*****	4.37	0.0658	2.20	0.30
AUG 29,82	AUG 28,82	195.0	4.5	5.12	5.54	0.0294	0.20	0.04

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHM

#05

PAGE : 3

REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 6,82	MAY 5,82	*****	0.68	*****	*****	*****	*****	U 0.0001
MAY 8,82	MAY 7,82	0.24	0.04	0.035	0.025	0.020	0.076	U 0.0071
MAY 9,82	MAY 8,82	*****	0.42	*****	*****	*****	*****	0.0095
MAY 20,82	MAY 19,82	0.68	0.11	0.105	0.035	0.025	0.710	0.0372
MAY 23,82	MAY 22,82	0.71	0.04	0.055	0.035	0.035	0.180	0.0288
MAY 24,82	MAY 23,82	0.11	0.01	0.015	0.015	0.025	0.296	0.0603
MAY 28,82	MAY 27,82	0.17	0.09	0.010	0.020	0.020	0.450	0.1202
MAY 29,82	MAY 28,82	0.06	<W	0.005	0.050	<W 0.005	0.380	0.0525
MAY 31,82	MAY 30,82	0.42	0.19	0.040	0.085	0.065	0.560	0.1950
JUN 2,82	JUN 1,82	0.19	0.16	0.025	0.045	0.040	0.314	0.1514
JUN 6,82	JUN 5,82	0.16	0.04	0.015	0.020	0.015	0.072	0.0257
JUN 7,82	JUN 6,82	*****	0.13	*****	*****	*****	*****	U 0.0014
JUN 11,82	JUN 10,82	0.16	0.14	0.015	0.045	0.025	0.580	0.2344
JUN 14,82	JUN 13,82	*****	0.31	*****	*****	*****	*****	0.0813
JUN 15,82	JUN 14,82	*****	0.56	*****	*****	*****	*****	0.0537
JUN 16,82	JUN 15,82	0.11	0.19	0.015	0.055	0.030	0.282	0.1072
JUN 19,82	JUN 18,82	0.33	0.09	0.020	0.025	0.015	0.600	0.0525
JUN 20,82	JUN 19,82	0.11	0.09	0.015	<T 0.010	<T 0.010	0.244	0.1000
JUN 21,82	JUN 20,82	0.16	0.02	0.020	0.030	0.020	0.460	0.0398
JUN 22,82	JUN 21,82	*****	0.08	*****	*****	*****	*****	0.0174
JUN 23,82	JUN 22,82	0.27	0.02	0.020	0.025	<T 0.005	0.142	0.0132
JUN 26,82	JUN 25,82	*****	0.12	*****	*****	*****	0.940	0.0631
JUL 8,82	JUL 7,82	*****	*****	*****	*****	*****	*****	U 0.0002
JUL 12,82	JUL 11,82	*****	*****	*****	*****	*****	*****	U 0.2188
JUL 18,82	JUL 17,82	*****	*****	*****	*****	*****	*****	*****
JUL 19,82	JUL 18,82	0.20	0.11	0.025	0.030	0.050	0.380	0.0661
JUL 28,82	JUL 27,82	0.11	<W 0.01	0.005	<T 0.010	<T 0.010	0.134	0.0245
JUL 29,82	JUL 28,82	0.16	0.05	0.005	0.025	0.045	0.064	U 0.0026
JUL 31,82	JUL 30,82	0.45	0.22	0.090	0.055	0.045	0.274	0.1175
AUG 3,82	AUG 2,82	0.16	<T 0.02	0.010	0.040	<T 0.010	0.206	0.0043
AUG 9,82	AUG 8,82	0.13	0.05	0.005	0.030	0.020	0.530	0.1259
AUG 14,82	AUG 13,82	*****	0.04	*****	*****	*****	*****	U 0.0036
AUG 20,82	AUG 19,82	0.61	0.05	0.105	0.055	<W 0.005	0.810	0.0204
AUG 21,82	AUG 20,82	*****	*****	*****	*****	*****	*****	0.0525
AUG 23,82	AUG 22,82	0.09	0.05	0.025	<T 0.015	<W 0.005	0.238	0.0661
AUG 25,82	AUG 24,82	0.04	0.03	0.015	<T 0.005	<T 0.005	0.182	0.0331
AUG 26,82	AUG 25,82	0.03	0.08	0.020	0.025	0.020	0.080	0.0110
AUG 27,82	AUG 26,82	*****	*****	*****	*****	*****	*****	U 0.0010
AUG 28,82	AUG 27,82	*****	0.08	*****	*****	*****	0.262	0.0427
AUG 29,82	AUG 28,82	0.09	0.06	0.020	<T 0.010	<T 0.010	0.074	0.0029

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHM

#05

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
SEP 2,82	SEP 1,82	830 830	1915 1945	1	2.7	1	28768	2	1	109		
SEP 3,82	SEP 2,82	830 830	1800 1900	1	4.3	1	28769	2	1	92		
SEP 4,82	SEP 3,82	830 830	1200 1300	1	1.0	1	28770	2	1	70		
SEP 6,82	SEP 5,82	830 830	700 830	1	4.5	1	28771	2	1	97		
SEP 7,82	SEP 6,82	830 830	830 1000	1	2.3	1	28772	2	1	88		
SEP 13,82	SEP 12,82	830 830	1800 1820	1	2.9	1	28773	2	1	75		
SEP 14,82	SEP 13,82	830 830	800 830	1	4.8	1	28774	2	1	113		
SEP 15,82	SEP 14,82	830 830	1015 1115	1	4.5	1	28775	2	1	97		
SEP 16,82	SEP 15,82	830 830	400 500	1	1.1	1	28776	2	1	56		
SEP 18,82	SEP 17,82	830 830	2330 430	1	22.5	1	28777	2	1	108		
SEP 21,82	SEP 20,82	830 830	1700 1750	1	2.3	1	28778	2	1	91		
SEP 22,82	SEP 21,82	830 830	500 700	1	1.0	1	28779	2	1	70		
SEP 23,82	SEP 22,82	830 830	700 830	1	2.6	1	28780	2	1	108		
SEP 24,82	SEP 23,82	830 830	830 930	1	0.3	1	28781	2	1	67		
SEP 25,82	SEP 24,82	830 830	**** ****	1	8.8	1	28782	2	1	107		
SEP 27,82	SEP 26,82	830 830	200 830	1	4.2	1	28783	2	1	96		
SEP 28,82	SEP 27,82	830 830	1045 1245	1	4.5	1	28784	2	1	91		
OCT 2,82	OCT 1,82	830 830	1000 1015	1	0.4	1	28785	2	1	202		
OCT 8,82	OCT 7,82	830 830	1230 1330	1	8.0	1	28786	2	1	95		
OCT 9,82	OCT 8,82	830 830	1645 1800	1	2.2	1	28787	2	1	78		
OCT 11,82	OCT 10,82	830 830	600 800	1	6.7	1	28788	2	1	105		
OCT 12,82	OCT 11,82	830 830	2100 2300	1	2.5	1	28789	2	1	93		
OCT 14,82	OCT 13,82	830 830	1700 1750	1	0.6	1	28790	2	1	104		
OCT 15,82	OCT 14,82	830 830	1400 2000	1	10.6	1	28791	2	1	11		
OCT 16,82	OCT 15,82	830 830	1300 1330	3	0.8	1	28792	2	1	156		
OCT 17,82	OCT 16,82	830 830	830 1100	3	0.7	1	28793	2	1	55		
OCT 21,82	OCT 20,82	830 830	1330 1600	1	8.3	1	28794	2	1	105		
OCT 22,82	OCT 21,82	830 830	900 930	3	0.4	1	28795	2	1	97		
OCT 30,82	OCT 29,82	830 830	1700 1720	1	0.7	1	28796	2	1	44		
NOV 1,82	OCT 31,82	830 830	1900 1930	1	0.8	1	28797	2	1	126		
NOV 2,82	NOV 1,82	830 830	1345 1730	1	14.4	1	28798	2	1	102		
NOV 3,82	NOV 2,82	830 830	2300 300	1	14.6	1	28799	2	1	107		
NOV 4,82	NOV 3,82	830 830	1815 2400	1	12.7	1	28800	2	1	101		
NOV 5,82	NOV 4,82	830 830	830 1600	1	10.5	1	28801	2	1	98		
NOV 6,82	NOV 5,82	830 830	1800 2000	3	1.9	2	28802	2	1	114		
NOV 11,82	NOV 10,82	830 830	300 600	1	0.5	2	28803	2	1	249		
NOV 12,82	NOV 11,82	830 830	1700 2100	1	8.4	2	28804	2	1	108		
NOV 13,82	NOV 12,82	830 830	1045 1300	1	6.3	2	28805	2	1	125		
NOV 14,82	NOV 13,82	830 830	**** ****	*	6.3	2	28806	2	1	24		NM
NOV 15,82	NOV 14,82	830 830	2030 2300	2	2.3	2	28807	2	1	*** EK		

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHM

#05

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 2,82	SEP 1,82	190.0	128.0	3.52	3.48	0.3640	12.85	U 1.34
SEP 3,82	SEP 2,82	255.0	19.5	4.66	4.76	0.0550	2.60	0.34
SEP 4,82	SEP 3,82	45.0	*****	*****	6.25	0.0312	0.80	0.08
SEP 6,82	SEP 5,82	280.0	39.0	4.16	4.14	0.1028	2.60	0.93
SEP 7,82	SEP 6,82	130.0	29.9	*****	4.22	0.0698	2.85	0.44
SEP 13,82	SEP 12,82	140.0	*****	3.55	3.56	0.3400	17.20	2.41
SEP 14,82	SEP 13,82	350.0	14.6	4.44	4.56	0.0386	1.50	0.15
SEP 15,82	SEP 14,82	280.0	32.0	4.08	4.14	0.0796	3.05	0.44
SEP 16,82	SEP 15,82	40.0	*****	*****	4.11	0.0952	4.35	0.82
SEP 18,82	SEP 17,82	1565.0	19.7	4.35	4.29	0.0642	1.75	0.28
SEP 21,82	SEP 20,82	135.0	39.0	4.18	4.13	0.0972	5.10	1.06
SEP 22,82	SEP 21,82	45.0	*****	*****	4.04	0.1072	2.70	0.82
SEP 23,82	SEP 22,82	180.0	*****	4.28	4.32	0.0604	1.20	0.37
SEP 24,82	SEP 23,82	13.0	*****	*****	*****	*****	*****	*****
SEP 25,82	SEP 24,82	608.0	40.0	3.98	3.98	0.1316	3.30	0.56
SEP 27,82	SEP 26,82	261.0	7.7	4.63	4.75	0.0392	0.50	0.10
SEP 28,82	SEP 27,82	264.0	8.0	4.54	4.80	0.0416	0.70	0.10
OCT 2,82	OCT 1,82	52.0	*****	*****	3.82	0.1632	5.70	0.99
OCT 8,82	OCT 7,82	490.0	60.0	3.92	3.81	0.1658	6.05	0.63
OCT 9,82	OCT 8,82	110.0	*****	*****	6.48	0.0436	7.00	U 1.73
OCT 11,82	OCT 10,82	455.0	33.9	4.17	4.05	0.1054	3.40	0.36
OCT 12,82	OCT 11,82	150.0	*****	*****	3.68	0.2360	7.80	2.27
OCT 14,82	OCT 13,82	40.0	*****	*****	4.32	0.0786	5.10	1.50
OCT 15,82	OCT 14,82	U 80.0	*****	4.70	*****	*****	*****	*****
OCT 16,82	OCT 15,82	80.0	*****	*****	5.17	0.0292	0.55	0.02
OCT 17,82	OCT 16,82	25.0	*****	*****	5.22	0.0324	0.50	0.02
OCT 21,82	OCT 20,82	560.0	22.5	4.19	4.25	0.0688	2.40	0.26
OCT 22,82	OCT 21,82	25.0	*****	*****	5.88	0.0236	*****	*****
OCT 30,82	OCT 29,82	U 20.0	*****	*****	6.95	0.0208	*****	*****
NOV 1,82	OCT 31,82	65.0	*****	*****	4.21	0.0754	2.60	0.52
NOV 2,82	NOV 1,82	950.0	9.0	*****	5.60	0.0388	1.50	0.23
NOV 3,82	NOV 2,82	1005.0	26.7	*****	4.20	0.0802	2.25	0.50
NOV 4,82	NOV 3,82	830.0	7.0	4.73	4.96	0.0310	0.35	0.11
NOV 5,82	NOV 4,82	665.0	11.2	4.54	4.54	0.0404	1.00	0.19
NOV 6,82	NOV 5,82	140.0	*****	*****	4.69	0.0430	1.45	0.32
NOV 11,82	NOV 10,82	80.0	*****	*****	3.87	0.1788	5.80	1.79
NOV 12,82	NOV 11,82	585.0	37.0	4.07	4.12	0.1126	3.20	0.60
NOV 13,82	NOV 12,82	505.0	20.5	4.36	4.42	0.0678	2.35	0.29
NOV 14,82	NOV 13,82	U 100.0	*****	*****	4.02	0.1244	2.65	1.30
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHEM

#05

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 2,82	SEP 1,82	0.22	0.26	0.040	0.025	0.040	0.820	0.3311
SEP 3,82	SEP 2,82	0.34	0.14	0.020	0.020	0.010	0.690	0.0174
SEP 4,82	SEP 3,82	*****	0.10	*****	*****	*****	*****	U 0.0006
SEP 6,82	SEP 5,82	0.89	0.20	0.180	0.065	0.035	0.800	0.0724
SEP 7,82	SEP 6,82	0.10	0.14	0.015	0.020	0.050	0.400	0.0603
SEP 13,82	SEP 12,82	*****	0.60	*****	*****	*****	1.800	0.2754
SEP 14,82	SEP 13,82	0.09	0.14	0.010	0.020	0.030	0.062	0.0275
SEP 15,82	SEP 14,82	0.12	0.14	0.020	0.020	0.030	0.288	0.0724
SEP 16,82	SEP 15,82	*****	0.36	*****	*****	*****	*****	0.0776
SEP 18,82	SEP 17,82	U 0.90	0.08	U 0.140	U 0.105	U 0.080	0.196	0.0513
SEP 21,82	SEP 20,82	*****	0.41	*****	*****	*****	*****	0.0741
SEP 22,82	SEP 21,82	*****	0.25	*****	*****	*****	*****	0.0912
SEP 23,82	SEP 22,82	0.12	0.14	<W 0.005	0.050	0.020	0.090	0.0479
SEP 24,82	SEP 23,82	*****	*****	*****	*****	*****	*****	*****
SEP 25,82	SEP 24,82	0.05	0.12	<W 0.005	0.045	0.025	0.386	0.1047
SEP 27,82	SEP 26,82	0.05	0.08	<W 0.005	0.030	0.030	0.112	0.0178
SEP 28,82	SEP 27,82	0.06	0.07	<W 0.005	0.030	0.020	0.216	0.0158
OCT 2,82	OCT 1,82	*****	0.46	*****	*****	*****	*****	0.1514
OCT 8,82	OCT 7,82	0.22	0.22	0.015	0.025	0.050	0.620	0.1549
OCT 9,82	OCT 8,82	U 2.00	U 0.63	U 0.400	U 0.200	U 0.230	U 1.840	U 0.0003
OCT 11,82	OCT 10,82	0.18	0.11	0.010	0.025	0.050	0.318	0.0891
OCT 12,82	OCT 11,82	0.68	0.52	0.075	0.180	0.270	1.480	0.2089
OCT 14,82	OCT 13,82	*****	*****	*****	*****	*****	*****	0.0479
OCT 15,82	OCT 14,82	*****	*****	*****	*****	*****	*****	*****
OCT 16,82	OCT 15,82	*****	0.11	*****	*****	*****	*****	0.0068
OCT 17,82	OCT 16,82	*****	0.19	*****	*****	*****	*****	0.0060
OCT 21,82	OCT 20,82	0.20	0.18	0.055	0.035	0.125	0.148	0.0562
OCT 22,82	OCT 21,82	*****	*****	*****	*****	*****	*****	U 0.0013
OCT 30,82	OCT 29,82	*****	*****	*****	*****	*****	*****	U 0.0001
NOV 1,82	OCT 31,82	0.50	0.13	0.070	0.060	0.100	*****	0.0617
NOV 2,82	NOV 1,82	0.26	<W 0.01	0.020	0.080	0.025	U 0.590	U 0.0025
NOV 3,82	NOV 2,82	0.16	0.10	0.030	0.045	0.070	0.318	0.0631
NOV 4,82	NOV 3,82	0.02	<W 0.01	<W 0.005	<W 0.005	<W 0.005	0.040	0.0110
NOV 5,82	NOV 4,82	0.03	0.02	<W 0.005	<W 0.005	<W 0.005	0.080	0.0288
NOV 6,82	NOV 5,82	0.12	0.08	0.010	0.030	0.035	0.610	0.0204
NOV 11,82	NOV 10,82	0.91	0.78	0.190	0.145	0.540	*****	0.1349
NOV 12,82	NOV 11,82	0.17	0.25	0.020	0.010	0.115	0.292	0.0759
NOV 13,82	NOV 12,82	0.21	0.26	0.040	0.015	0.155	0.262	0.0380
NOV 14,82	NOV 13,82	0.33	0.48	0.030	0.010	0.035	0.290	0.0955
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHM

#05

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REMOVAL DATE	EXPOSURE DATE	SAMPLING	PRECIP	SAMPLE	GAUGE	GAUGE	SAMPLE	PROJECT	SUBPROJECT	SAMPLER	COMMENTS
		START/END HR. HR.	START/END HR. HR.	TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	DEPTH(MM)	01-STD. 02-NIPHER	TYPE 02-APIOS 03-SPECIAL	NUMBER	CODE 01-MOE 03-AES	CODE 04-ON HYDRO	EFFICI- ENCY (%)
NOV 21,82	NOV 20,82	830 830	830 1200	1	15.5	2	28808	2	1	104	
NOV 22,82	NOV 21,82	830 830	915 1130	1	2.3	2	28809	2	1	81	
NOV 24,82	NOV 23,82	830 830	1900 2100	3	18.1	2	28810	2	1	93	
NOV 25,82	NOV 24,82	830 830	2000 2200	2	***	2	28811	2	1	***	EK
NOV 27,82	NOV 26,82	830 830	1030 1200	2	1.3	2	28812	2	1	78	
NOV 29,82	NOV 28,82	830 830	1700 830	1	19.3	2	28813	2	1	91	
NOV 30,82	NOV 29,82	830 830	830 1200	1	4.2	2	28814	2	1	109	
DEC 1,82	NOV 30,82	830 830	2300 2400	1	0.4	2	28815	2	1	175	
DEC 3,82	DEC 2,82	830 830	1700 1830	1	23.1	2	28816	2	1	92	
DEC 4,82	DEC 3,82	830 830	100 300	1	9.3	2	28817	2	1	112	
DEC 5,82	DEC 4,82	830 830	530 630	1	0.2	2	28818	2	1	116	C
DEC 6,82	DEC 5,82	830 830	1400 1800	1	14.3	2	28819	2	1	95	
DEC 7,82	DEC 6,82	830 830	900 1000	1	0.5	2	28820	2	1	156	
DEC 9,82	DEC 8,82	830 830	1200 1800	2	3.1	2	28821	2	1	20	C
DEC 11,82	DEC 10,82	830 830	1400 1700	2	1.3	2	28822	2	1	17	C
DEC 12,82	DEC 11,82	830 830	300 500	2	0.9	2	28823	2	1	17	
DEC 15,82	DEC 14,82	830 830	500 600	1	0.5	2	28824	2	1	124	
DEC 16,82	DEC 15,82	830 830	1900 830	3	18.5	2	28825	2	1	97	
DEC 17,82	DEC 16,82	830 830	1100 1500	3	1.7	2	28826	2	1	23	
DEC 19,82	DEC 18,82	830 830	400 830	2	4.6	2	28827	2	1	41	
DEC 20,82	DEC 19,82	830 830	200 830	2	8.1	2	28828	2	1	61	
DEC 21,82	DEC 20,82	830 830	830 1100	2	3.1	2	28829	2	1	42	
DEC 23,82	DEC 22,82	830 830	1100 1300	2	1.1	2	28830	2	1	8	E
DEC 24,82	DEC 23,82	830 830	1950 2130	1	12.1	2	28831	2	1	***	G
DEC 25,82	DEC 24,82	830 830	2200 2400	1	11.1	2	28832	2	1	92	
DEC 26,82	DEC 25,82	830 830	2200 2300	1	2.7	2	28833	2	1	139	
DEC 28,82	DEC 27,82	830 830	400 600	1	3.1	2	28834	2	1	87	
DEC 29,82	DEC 28,82	830 830	930 1015	1	0.7	2	28835	2	1	135	
DEC 30,82	DEC 29,82	830 830	945 1115	2	3.3	2	28836	2	1	32	
JAN 1,83	DEC 31,82	830 830	1400 1900	2	2.3	2	28837	2	1	75	

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

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STATION NAME : RAVEN LAKE/DAILY/AEROCHEM #05 PAGE : 8

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
NOV 21,82	NOV 20,82	1035.0	26.5	4.19	4.23	0.0874	2.40	0.36
NOV 22,82	NOV 21,82	120.0	*****	*****	4.16	0.0914	3.50	0.39
NOV 24,82	NOV 23,82	1090.0	12.8	4.47	4.52	0.0848	0.75	0.22
NOV 25,82	NOV 24,82	5.0	*****	*****	*****	*****	*****	*****
NOV 27,82	NOV 26,82	65.0	*****	*****	U 4.70	U 0.0404	0.95	0.43
NOV 29,82	NOV 28,82	1135.0	21.5	4.29	4.32	0.0998	1.50	0.26
NOV 30,82	NOV 29,82	295.0	19.0	4.31	4.41	0.0756	1.30	0.27
DEC 1,82	NOV 30,82	45.0	*****	*****	3.70	0.2640	6.95	> 2.00
DEC 3,82	DEC 2,82	1365.0	25.0	4.27	4.32	0.0858	2.20	0.19
DEC 4,82	DEC 3,82	670.0	17.0	4.41	4.51	0.0652	1.15	0.29
DEC 5,82	DEC 4,82	15.0	*****	*****	5.04	0.0374	*****	*****
DEC 6,82	DEC 5,82	875.0	19.0	4.35	4.45	0.0704	1.40	0.24
DEC 7,82	DEC 6,82	50.0	*****	*****	4.43	0.0670	2.50	0.64
DEC 9,82	DEC 8,82	U 40.0	*****	*****	4.42	0.0512	1.05	0.75
DEC 11,82	DEC 10,82	U 15.0	*****	*****	*****	*****	*****	*****
DEC 12,82	DEC 11,82	U 10.0	*****	*****	*****	*****	*****	*****
DEC 15,82	DEC 14,82	40.0	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	1160.0	21.6	4.26	4.36	0.0702	1.55	0.27
DEC 17,82	DEC 16,82	U 26.0	*****	*****	4.40	0.0606	*****	*****
DEC 19,82	DEC 18,82	U 121.0	*****	*****	4.43	0.0584	1.05	0.73
DEC 20,82	DEC 19,82	317.0	31.0	4.03	4.13	0.0920	1.30	0.76
DEC 21,82	DEC 20,82	U 85.0	*****	*****	4.23	0.0702	0.50	0.72
DEC 23,82	DEC 22,82	U 6.0	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	U 270.0	49.0	4.10	4.03	0.1278	U 5.25	U 0.90
DEC 25,82	DEC 24,82	659.0	36.0	4.10	4.09	0.1138	2.75	0.42
DEC 26,82	DEC 25,82	242.0	14.5	4.60	4.64	0.0488	1.80	0.18
DEC 28,82	DEC 27,82	174.0	18.4	*****	4.48	U 0.0554	1.60	0.32
DEC 29,82	DEC 28,82	61.0	*****	*****	4.47	0.0606	2.25	U 0.18
DEC 30,82	DEC 29,82	U 69.0	*****	*****	5.11	0.0308	< T 0.05	0.06
JAN 1,83	DEC 31,82	111.0	*****	*****	U 5.32	U 0.0268	2.50	0.55

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHM

#05

PAGE : 9

REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
NOV 21,82	NOV 20,82	0.05	0.11	<W 0.005	0.015	0.040	0.172	0.0589
NOV 22,82	NOV 21,82	0.25	0.11	<W 0.005	0.055	0.040	0.202	0.0692
NOV 24,82	NOV 23,82	<W 0.01	0.21	0.005	<W 0.005	0.010	0.042	0.0302
NOV 25,82	NOV 24,82	*****	*****	*****	*****	*****	*****	*****
NOV 27,82	NOV 26,82	0.55	0.21	0.040	0.020	0.055	*****	U 0.0200
NOV 29,82	NOV 28,82	0.03	0.10	<W 0.005	<W 0.005	<T 0.005	0.066	0.0479
NOV 30,82	NOV 29,82	0.02	0.09	<W 0.005	<T 0.005	0.010	0.088	0.0389
DEC 1,82	NOV 30,82	*****	0.50	*****	*****	*****	*****	0.1995
DEC 3,82	DEC 2,82	0.02	0.28	0.010	<T 0.010	0.110	0.086	0.0479
DEC 4,82	DEC 3,82	0.03	0.13	0.005	<T 0.005	0.020	0.118	0.0309
DEC 5,82	DEC 4,82	*****	*****	*****	*****	*****	*****	0.0091
DEC 6,82	DEC 5,82	<T 0.01	0.17	0.005	<T 0.010	0.060	0.132	0.0355
DEC 7,82	DEC 6,82	*****	0.12	*****	*****	*****	*****	0.0372
DEC 9,82	DEC 8,82	*****	0.25	*****	*****	*****	*****	0.0380
DEC 11,82	DEC 10,82	*****	*****	*****	*****	*****	*****	*****
DEC 12,82	DEC 11,82	*****	*****	*****	*****	*****	*****	*****
DEC 15,82	DEC 14,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	0.04	0.03	<W 0.005	<W 0.005	<W 0.005	0.072	0.0437
DEC 17,82	DEC 16,82	*****	*****	*****	*****	*****	*****	0.0398
DEC 19,82	DEC 18,82	0.60	0.33	0.060	0.020	0.160	0.100	0.0372
DEC 20,82	DEC 19,82	0.09	0.16	0.015	0.015	0.080	0.066	0.0741
DEC 21,82	DEC 20,82	0.10	0.09	0.010	0.015	0.030	*****	0.0589
DEC 23,82	DEC 22,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	U 1.05	U 0.70	U 0.100	U 0.160	U 0.460	0.490	0.0933
DEC 25,82	DEC 24,82	0.08	0.39	0.030	U 0.335	0.180	0.140	0.0813
DEC 26,82	DEC 25,82	0.20	0.12	0.025	0.025	0.140	0.266	0.0229
DEC 28,82	DEC 27,82	U 0.42	0.11	0.015	0.015	0.070	U 0.060	0.0331
DEC 29,82	DEC 28,82	U 0.47	U 0.31	U 0.115	U 0.225	U 0.270	*****	0.0339
DEC 30,82	DEC 29,82	*****	0.06	*****	*****	*****	*****	0.0078
JAN 1,83	DEC 31,82	*****	0.45	*****	*****	*****	0.008	U 0.0048

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES #06 PAGE : 1

REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END		PRECIP START/END		SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH (MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		HR.	HR.	HR.	HR.								
JAN 4,82	JAN 3,82	830	745	200	745	1	3.3	2	28379	2	1	93	
JAN 5,82	JAN 4,82	745	750	1800	2330	2	6.4	2	28380	2	1	74	C
JAN 7,82	JAN 6,82	755	745	1000	1600	2	1.1	2	28381	2	1	91	
JAN 9,82	JAN 8,82	755	930	1300	2300	2	1.4	2	28382	2	1	143	
JAN 11,82	JAN 10,82	930	755	1300	500	2	2.4	2	28383	2	1	67	C M
JAN 13,82	JAN 12,82	755	745	600	745	2	1.1	2	28384	2	1	79	
JAN 14,82	JAN 13,82	750	745	1500	2000	2	1.5	2	28385	2	1	77	
JAN 16,82	JAN 15,82	745	830	400	830	2	3.1	2	28386	2	1	**** GC	N
JAN 18,82	JAN 16,82	830	755	1030	2300	2	1.4	2	28387	2	1	84 C HZ	
JAN 24,82	JAN 22,82	750	1430	1930	1300	2	8.1	2	28388	2	1	**** GC NZ	
JAN 29,82	JAN 28,82	750	745	1000	700	2	0.4	2	28389	2	1	106	
JAN 30,82	JAN 29,82	745	930	300	930	2	5.1	2	28390	2	1	92	C
JAN 31,82	JAN 30,82	930	845	930	1330	2	2.1	2	28391	2	1	84	
FEB 1,82	JAN 31,82	845	750	1330	500	2	18.1	2	28392	2	1	34	
FEB 4,82	FEB 3,82	755	750	1030	130	2	17.4	2	28393	2	1	39	
FEB 6,82	FEB 5,82	750	930	1130	2245	2	3.1	2	28394	2	1	**** G	N N
FEB 8,82	FEB 7,82	900	750	1000	730	2	1.1	2	28395	2	1	47 C	N
FEB 9,82	FEB 8,82	750	755	615	745	2	1.2	2	28396	2	1	88	
FEB 14,82	FEB 13,82	915	930	630	830	2	0.5	2	28397	2	1	109	
FEB 19,82	FEB 18,82	750	745	100	730	2	6.2	2	28398	2	1	**** G	
FEB 21,82	FEB 20,82	930	1030	1530	900	2	5.4	2	28399	2	1	**** G M	
MAR 2,82	MAR 1,82	955	745	1330	2145	2	1.3	2	28400	2	1	60	
MAR 5,82	MAR 4,82	750	745	1400	230	2	17.1	2	28401	2	1	67	
MAR 7,82	MAR 6,82	930	915	2000	300	2	0.5	2	28402	2	1	433	
MAR 9,82	MAR 8,82	730	750	200	730	2	2.5	2	28403	2	1	**** G	N
MAR 11,82	MAR 10,82	750	745	1130	630	3	2.4	2	28404	2	1	106	
MAR 12,82	MAR 11,82	745	750	830	1100	1	0.3	2	28405	2	1	30	
MAR 13,82	MAR 12,82	750	930	430	845	1	10.4	2	28406	2	1	99	
MAR 17,82	MAR 16,82	750	745	1600	2200	2	20.1	2	28407	2	1	38	
MAR 19,82	MAR 18,82	750	755	1430	700	3	1.5	2	28408	2	1	130	
MAR 22,82	MAR 21,82	900	750	930	2000	2	12.1	2	28409	2	1	94	
MAR 26,82	MAR 25,82	750	750	1730	755	2	14.5	2	28410	2	1	104	
MAR 31,82	MAR 30,82	750	755	2000	700	1	1.3	2	28411	2	1	201 C NJH	
APR 1,82	MAR 31,82	755	750	600	730	3	0.3	2	28412	2	1	152 C NH	
APR 4,82	APR 3,82	745	830	745	830	3	13.2	2	28413	2	1	108	
APR 11,82	APR 10,82	930	1015	200	1000	3	2.2	2	28414	2	1	149	
APR 12,82	APR 11,82	1015	930	1030	2300	3	1.3	2	28415	2	1	70	
APR 13,82	APR 12,82	930	750	1230	750	1	5.2	2	28416	2	1	116	
APR 17,82	APR 16,82	755	815	2100	815	1	3.2	2	28417	2	1	122 C	N
APR 18,82	APR 17,82	815	930	815	1700	1	3.1	2	28418	2	1	151	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

#06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH6.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 4,82	JAN 3,82	505.0	38.0	4.12	4.05	0.1256	2.75	0.62
JAN 5,82	JAN 4,82	785.0	16.5	4.56	4.51	0.0652	1.15	0.28
JAN 7,82	JAN 6,82	165.0	*****	*****	4.04	*****	3.75	1.18
JAN 9,82	JAN 8,82	330.0	15.9	*****	4.51	0.0624	0.60	0.52
JAN 11,82	JAN 10,82	265.0	U 17.4	*****	U 6.77	U 0.0370	U 1.20	U 0.20
JAN 13,82	JAN 12,82	144.0	27.5	*****	4.16	*****	0.40	0.72
JAN 14,82	JAN 13,82	190.0	*****	*****	4.27	*****	0.50	0.39
JAN 16,82	JAN 15,82	U 195.0	*****	*****	3.89	*****	1.35	1.21
JAN 18,82	JAN 16,82	195.0	23.0	*****	4.38	*****	0.90	0.41
JAN 24,82	JAN 22,82	U 360.0	11.2	4.63	4.62	0.0654	0.55	0.25
JAN 29,82	JAN 28,82	70.0	*****	*****	4.14	*****	5.00	1.76
JAN 30,82	JAN 29,82	775.0	21.3	4.44	4.34	0.0770	0.60	0.63
JAN 31,82	JAN 30,82	290.0	31.4	*****	4.11	0.1060	1.60	0.50
FEB 1,82	JAN 31,82	U 1025.0	14.9	4.52	4.41	0.0692	0.60	0.25
FEB 4,82	FEB 3,82	U 1130.0	15.6	4.49	4.40	0.0716	0.60	0.29
FEB 6,82	FEB 5,82	765.0	20.1	4.36	4.28	0.0816	0.40	0.52
FEB 8,82	FEB 7,82	U 85.0	*****	*****	4.02	*****	U 1.80	1.55
FEB 9,82	FEB 8,82	175.0	*****	*****	4.06	*****	0.50	1.07
FEB 14,82	FEB 13,82	90.0	*****	*****	U 3.86	*****	U 4.00	U 1.76
FEB 19,82	FEB 18,82	715.0	U 13.4	U 4.56	U 4.52	U 0.0644	U 0.70	U 0.30
FEB 21,82	FEB 20,82	640.0	20.8	4.32	4.21	0.0868	1.10	0.41
MAR 2,82	MAR 1,82	130.0	40.2	*****	4.03	*****	0.55	1.21
MAR 5,82	MAR 4,82	1895.0	34.8	4.18	4.11	0.1136	2.00	0.67
MAR 7,82	MAR 6,82	355.0	37.8	4.11	4.05	0.1214	0.85	1.00
MAR 9,82	MAR 8,82	U 30.0	*****	*****	4.12	*****	0.65	0.90
MAR 11,82	MAR 10,82	420.0	150.0	3.50	3.52	0.4084	10.10	2.73
MAR 12,82	MAR 11,82	U 15.0	*****	*****	*****	*****	*****	*****
MAR 13,82	MAR 12,82	1700.0	58.0	3.89	3.94	0.1554	4.90	0.71
MAR 17,82	MAR 16,82	U 1255.0	14.9	4.58	4.65	0.0456	1.15	0.40
MAR 19,82	MAR 18,82	320.0	141.0	*****	3.52	0.4048	9.85	2.32
MAR 22,82	MAR 21,82	1870.0	34.8	4.12	4.16	0.1150	2.65	0.63
MAR 26,82	MAR 25,82	2495.0	10.9	4.67	4.72	0.0480	0.60	0.29
MAR 31,82	MAR 30,82	430.0	30.6	U 4.59	U 5.02	0.0448	4.75	1.12
APR 1,82	MAR 31,82	75.0	*****	*****	U 5.02	0.0378	3.65	0.65
APR 4,82	APR 3,82	2355.0	10.6	4.88	5.06	0.0298	1.55	0.15
APR 11,82	APR 10,82	540.0	54.0	4.02	4.07	0.1292	5.20	1.08
APR 12,82	APR 11,82	150.0	64.2	3.87	3.95	0.1602	5.90	1.18
APR 13,82	APR 12,82	995.0	52.0	3.93	4.08	0.1482	7.10	1.53
APR 17,82	APR 16,82	645.0	77.0	3.79	3.88	0.1816	7.80	1.76
APR 18,82	APR 17,82	770.0	53.0	3.97	4.11	0.1260	6.70	0.72

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

#06

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+
								LAB MG/L
JAN 4*82	JAN 3,82	0.09	0.09	0.015	0.010	0.080	0.246	0.0891
JAN 5*82	JAN 4,82	0.32	<T	0.01	0.025	0.030	0.064	0.0309
JAN 7*82	JAN 6,82	0.82		0.38	0.070	0.180	0.500	0.0912
JAN 9*82	JAN 8,82	0.43		0.14	0.025	0.020	0.024	0.0309
JAN 11*82	JAN 10,82	U 2.10	U	1.50	U 0.290	0.100	U 0.850	0.024
JAN 13*82	JAN 12,82	*****	U	1.12	*****	*****	*****	U 0.0002
JAN 14*82	JAN 13,82	0.06		0.32	0.010	0.020	0.004	0.0692
JAN 16*82	JAN 15,82	0.27		0.50	0.015	0.020	0.022	0.0537
JAN 18*82	JAN 16,82	0.59		0.57	0.075	0.040	0.110	0.1288
JAN 24*82	JAN 22,82	0.13		0.17	0.015	0.015	0.150	0.062
JAN 29*82	JAN 28,82	*****	U	1.00	*****	*****	0.030	0.0417
JAN 30*82	JAN 29,82	0.40		0.28	0.020	0.020	0.092	0.0240
JAN 31*82	JAN 30,82	0.06		0.22	<T 0.005	0.010	0.160	0.0724
FEB 1*82	JAN 31,82			U 0.18	<T 0.005	0.005	0.035	0.0457
FEB 4*82	FER 3,82	0.02		0.14	<T 0.005	0.005	0.092	0.0776
FEB 6*82	FER 5,82	0.02		0.10	<T 0.005	0.005	0.015	0.0389
FEB 8*82	FER 7,82	0.02		U 0.52	*****	0.005	0.048	0.0398
FEB 9*82	FER 8,82	0.26		0.38		0.040	0.020	0.0525
FEB 14*82	FER 13,82	U 1.59	U	1.41	U 0.150	0.130	0.330	0.0955
FEB 19*82	FER 18,82	0.10		0.08	U 0.150	0.010	U 0.236	0.0871
FEB 21*82	FER 20,82	0.04		0.14	<T 0.005	0.040	0.022	0.1380
MAR 2*82	MAR 1,82	0.17		0.46	<T 0.005	0.005	0.298	0.0302
MAR 5*82	MAR 4,82	0.16		0.35	<T 0.005	0.015	0.108	0.0617
MAR 7*82	MAR 6,82	0.17		0.08	<T 0.005	0.010	0.218	0.0933
MAR 9*82	MAR 8,82	0.34		0.34	0.015	0.025	0.024	0.0776
MAR 11*82	MAR 10,82	*****		0.45	*****	*****	0.155	0.050
MAR 12*82	MAR 11,82	0.65		0.90	0.075	0.045	0.300	0.0891
MAR 13*82	MAR 12,82	*****		*****	*****	*****	1.350	0.0759
MAR 17*82	MAR 16,82	0.23		0.34	0.035	0.020	0.3020	*****
MAR 19*82	MAR 18,82	0.42		0.06	0.045	0.020	0.510	*****
MAR 22*82	MAR 21,82	0.73		0.41	0.040	0.020	0.138	0.1148
MAR 26*82	MAR 25,82	0.40		0.08	0.030	0.015	0.045	0.0224
MAR 31*82	MAR 30,82	0.22		0.02	0.025	<W 0.005	0.095	0.3020
APR 1*82	MAR 31,82	U 2.67	U	0.74	U 0.280	0.065	0.040	0.0692
APR 4*82	APR 3,82	0.48		0.29	U 0.165	0.065	0.460	0.0191
APR 11*82	APR 10,82	0.44		0.03	U 0.060	0.045	0.350	0.0095
APR 12*82	APR 11,82	0.79		0.25	0.080	0.045	0.600	0.0095
APR 13*82	APR 12,82	*****		0.21	*****	*****	0.025	0.0087
APR 17*82	APR 16,82	1.48		0.38	U 0.175	0.080	0.110	0.0851
APR 18*82	APR 17,82	1.75		0.57	U 0.190	0.055	0.190	0.1122
		0.64		0.38	U 0.150	0.100	0.225	0.0832

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES

#06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
APR 20,82	APR 19,82	760.0	U 51.5	U 4.04	4.17	0.1026	5.10	U 1.54
APR 21,82	APR 20,82	1715.0	35.6	4.10	4.18	0.0974	3.65	0.41
APR 27,82	APR 26,82	270.0	78.0	U 7.09	U 7.30	U 0.0380	U 10.40	U 1.89

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/SES #06 PAGE : 6

REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
APR 20.82	APR 19.82	U 1.35	0.27	U 0.195	0.030	0.075	0.940	0.0676
APR 21.82	APR 20.82	0.16	0.10	0.020	0.020	0.025	0.390	0.0661
APR 27.82	APR 26.82	U 6.70	U 0.80	U 1.100	U 0.635	U 0.285	U 3.700	U 0.0001

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM

#06

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
MAY 6,82	MAY 5,82	750 745	**** ****	1	2.0	1	28422	2	1	70	C	
MAY 8,82	MAY 7,82	755 1300	755 1430	1	6.3	1	28423	2	1	92	C	H
MAY 9,82	MAY 8,82	755 950	755 1630	1	2.2	1	28424	2	1	49		N
MAY 20,82	MAY 19,82	800 750	830 1630	1	5.4	1	28425	2	1	101		JH
MAY 23,82	MAY 22,82	900 945	1900 945	1	4.2	1	28426	2	1	96		
MAY 24,82	MAY 23,82	900 845	945 850	1	4.4	1	28427	2	1	97		
MAY 28,82	MAY 27,82	800 755	200 630	1	2.4	1	28428	2	1	117		
MAY 29,82	MAY 28,82	755 845	830 715	1	8.2	1	28429	2	1	97		
MAY 31,82	MAY 30,82	800 750	830 615	1	5.2	1	28430	2	1	84		Y
JUN 2,82	JUN 1,82	800 710	830 1600	1	10.3	1	28431	2	1	93		
JUN 6,82	JUN 5,82	900 845	1500 815	*	8.1	1	28432	2	1	83		
JUN 7,82	JUN 6,82	845 755	910 730	1	1.2	1	28433	2	1	19	C	N
JUN 11,82	JUN 10,82	800 750	1430 200	1	19.4	1	28434	2	1	95		
JUN 14,82	JUN 13,82	800 750	1300 2030	1	2.0	1	28435	2	1	85		
JUN 15,82	JUN 14,82	750 750	400 700	1	2.5	1	28436	2	1	40		N
JUN 16,82	JUN 15,82	750 750	1400 2300	1	25.0	1	28437	2	1	128		
JUN 18,82	JUN 17,82	750 ****	400 500	*	0.4	1	28438	2	1	39		N
JUN 19,82	JUN 18,82	750 815	2100 815	1	7.0	1	28439	2	1	96		
JUN 20,82	JUN 19,82	815 830	815 1619	1	8.1	1	28440	2	1	99		
JUN 21,82	JUN 20,82	830 900	1600 100	1	8.2	1	28441	2	1	256		N
JUN 23,82	JUN 22,82	700 650	830 1930	1	5.3	1	28442	2	1	98		
JUN 25,82	JUN 24,82	800 755	**** ****	1	0.4	1	28443	2	1	77		
JUL 12,82	JUL 11,82	700 750	815 855	*	1.0	1	28444	2	1	23		N
JUL 18,82	JUL 17,82	800 815	315 530	1	7.0	1	28445	2	1	27		
JUL 19,82	JUL 18,82	800 755	1600 2100	1	7.0	1	28446	2	1	90		
JUL 26,82	JUL 25,82	800 750	900 1000	1	1.0	1	28447	2	1	70	C	
JUL 28,82	JUL 27,82	800 750	1900 730	1	17.1	1	28448	2	1	96		
JUL 29,82	JUL 28,82	750 845	1030 1300	1	4.3	1	28449	2	1	92		HM
JUL 31,82	JUL 30,82	800 755	2030 500	1	7.4	1	28450	2	1	99		
AUG 4,82	AUG 3,82	800 800	**** ****	1	5.4	1	28451	2	1	96	C	JHC
AUG 10,82	AUG 9,82	800 800	**** ****	1	4.1	1	28452	2	1	76	B	
AUG 20,82	AUG 19,82	800 750	1400 500	1	16.2	1	28453	2	1	95		
AUG 21,82	AUG 20,82	750 815	700 800	1	0.4	1	28454	2	1	136	C	N
AUG 22,82	AUG 21,82	815 1015	1000 1400	1	1.0	1	28455	2	1	70		
AUG 23,82	AUG 22,82	1015 755	**** ****	1	19.1	1	28456	2	1	101		
AUG 25,82	AUG 24,82	800 800	200 730	1	19.3	1	28457	2	1	86		
AUG 26,82	AUG 25,82	730 745	730 1030	1	6.1	1	28458	2	1	88	B	
AUG 28,82	AUG 27,82	800 910	930 1400	1	2.2	1	28459	2	1	88		
AUG 29,82	AUG 28,82	910 1400	1100 1400	1	2.3	1	28460	2	1	81		
SEP 2,82	SEP 1,82	800 750	1945 2345	1	7.2	1	28461	2	1	51	A	HM

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM #06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH3.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 6,82	MAY 5,82	90.0	*****	*****	3.87	0.1956	11.85	1.84
MAY 8,82	MAY 7,82	375.0	13.4	4.99	5.22	U 0.0346	2.35	0.36
MAY 9,82	MAY 8,82	U 70.0	*****	*****	5.16	0.0300	0.45	0.15
MAY 20,82	MAY 19,82	350.0	32.5	4.26	4.65	0.0508	3.75	0.80
MAY 23,82	MAY 22,82	260.0	16.3	4.32	4.44	0.0440	1.50	0.25
MAY 24,82	MAY 23,82	275.0	48.4	3.90	4.05	0.1290	4.90	0.60
MAY 28,82	MAY 27,82	180.0	*****	3.81	3.87	0.1756	5.45	0.81
MAY 29,82	MAY 28,82	510.0	33.4	4.07	4.23	0.0972	3.30	0.32
MAY 31,82	MAY 30,82	280.0	97.8	3.67	3.71	0.2520	8.90	1.19
JUN 2,82	JUN 1,82	620.0	66.8	3.81	3.89	0.1766	5.55	0.79
JUN 6,82	JUN 5,82	435.0	12.9	*****	4.60	0.0364	0.80	0.20
JUN 7,82	JUN 6,82	U 15.0	*****	*****	4.38	0.0558	*****	*****
JUN 11,82	JUN 10,82	1185.0	80.0	3.75	3.74	0.2120	8.40	0.59
JUN 14,82	JUN 13,82	110.0	62.1	*****	3.99	0.1306	6.85	1.45
JUN 15,82	JUN 14,82	U 65.0	*****	*****	4.13	0.1078	8.25	1.91
JUN 16,82	JUN 15,82	2065.0	47.7	3.93	3.96	0.1280	4.30	0.53
JUN 18,82	JUN 17,82	U 10.0	*****	0.00	*****	*****	*****	*****
JUN 19,82	JUN 18,82	435.0	26.2	4.23	4.33	0.0674	2.50	0.57
JUN 20,82	JUN 19,82	515.0	47.5	3.94	3.96	0.1234	3.90	0.69
JUN 21,82	JUN 20,82	1350.0	26.3	4.23	4.29	0.0668	2.50	0.51
JUN 23,82	JUN 22,82	335.0	9.8	*****	4.82	0.0304	0.85	0.21
JUN 25,82	JUN 24,82	20.0	*****	*****	4.22	0.0800	*****	*****
JUL 12,82	JUL 11,82	U 15.0	*****	*****	U 7.78	0.0998	*****	*****
JUL 18,82	JUL 17,82	U 125.0	*****	*****	4.44	0.0558	U 1.45	0.27
JUL 19,82	JUL 18,82	405.0	22.3	4.20	4.37	0.0600	2.25	0.43
JUL 26,82	JUL 25,82	45.0	*****	*****	4.50	0.0596	*****	*****
JUL 28,82	JUL 27,82	1055.0	9.8	4.64	4.70	0.0320	0.65	0.15
JUL 29,82	JUL 28,82	255.0	4.1	4.97	5.08	0.0222	0.05	0.04
JUL 31,82	JUL 30,82	470.0	64.0	3.86	3.80	0.1596	5.35	1.06
AUG 4,82	AUG 3,82	335.0	8.2	U 4.81	U 5.39	U 0.0230	0.65	0.18
AUG 10,82	AUG 9,82	200.0	65.0	3.80	3.81	0.1646	7.35	0.73
AUG 20,82	AUG 19,82	990.0	19.5	4.53	4.71	0.0430	3.55	0.41
AUG 21,82	AUG 20,82	35.0	*****	*****	U 6.45	U 0.0224	2.50	0.11
AUG 22,82	AUG 21,82	45.0	*****	*****	4.88	0.0418	6.30	0.44
AUG 23,82	AUG 22,82	1240.0	30.0	4.11	4.16	0.0958	2.85	0.40
AUG 25,82	AUG 24,82	1070.0	16.6	4.33	4.46	0.0606	1.45	0.20
AUG 26,82	AUG 25,82	345.0	5.2	4.81	U 5.05	0.0360	0.45	0.06
AUG 28,82	AUG 27,82	125.0	28.0	*****	4.22	0.0924	3.50	0.59
AUG 29,82	AUG 28,82	120.0	*****	*****	5.54	0.0278	0.20	0.04
SEP 2,82	SEP 1,82	285.0	157.0	3.44	3.39	0.4300	15.00	0.26

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM

#06

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REMOVAL DATE	EXPOSURE DATE	CALCIUM	CHLORIDE	MAGNESIM	POTASSIM	SODIUM	AMMONIUM AS N	FREE H+
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	LAB
MAY 6,82	MAY 5,82	*****	0.44	*****	*****	*****	*****	0.1349
MAY 8,82	MAY 7,82	0.70	0.11	0.160	0.030	0.035	0.238	U 0.0060
MAY 9,82	MAY 8,82	*****	0.02	*****	*****	*****	*****	0.0069
MAY 20,82	MAY 19,82	0.70	0.10	0.125	0.080	0.025	0.690	0.0224
MAY 23,82	MAY 22,82	0.20	<W	0.01	0.025	0.020	<T 0.010	0.128 0.0363
MAY 24,82	MAY 23,82	0.27	0.02	0.010	0.025	<T 0.010	0.410	0.0891
MAY 28,82	MAY 27,82	0.15	0.08	0.015	0.025	0.015	0.352	0.1349
MAY 29,82	MAY 28,82	0.03	<W	0.01	<W 0.005	<T 0.010	<T 0.005	0.262 0.0589
MAY 31,82	MAY 30,82	0.22	0.20	0.020	0.060	0.025	0.750	0.1950
JUN 2,82	JUN 1,82	0.08	0.15	0.005	0.020	0.015	0.352	0.1288
JUN 6,82	JUN 5,82	0.11	0.04	0.010	0.020	<T 0.010	0.072	0.0251
JUN 7,82	JUN 6,82	*****	*****	*****	*****	*****	*****	0.0417
JUN 11,82	JUN 10,82	0.12	0.06	0.015	0.050	0.025	0.480	0.1820
JUN 14,82	JUN 13,82	*****	0.33	*****	*****	*****	*****	0.1023
JUN 15,82	JUN 14,82	*****	0.49	*****	*****	*****	*****	0.0741
JUN 16,82	JUN 15,82	0.09	0.12	0.015	0.040	<T 0.010	0.278	0.1096
JUN 18,82	JUN 17,82	*****	*****	*****	*****	*****	*****	*****
JUN 19,82	JUN 18,82	0.28	0.05	0.020	0.030	0.020	0.490	0.0468
JUN 20,82	JUN 19,82	0.13	0.11	0.015	<T 0.010	0.015	0.264	0.1096
JUN 21,82	JUN 20,82	0.16	0.04	0.025	<T 0.015	<T 0.010	0.480	0.0513
JUN 23,82	JUN 22,82	0.18	0.03	0.015	0.020	0.015	0.136	0.0151
JUN 25,82	JUN 24,82	*****	*****	*****	*****	*****	*****	0.0603
JUL 12,82	JUL 11,82	*****	*****	*****	*****	*****	*****	U 0.0000
JUL 18,82	JUL 17,82	0.11	0.06	0.015	<T 0.015	0.020	U 0.120	0.0363
JUL 19,82	JUL 18,82	0.21	0.10	0.025	0.030	0.040	0.366	0.0427
JUL 26,82	JUL 25,82	*****	*****	*****	*****	*****	*****	0.0316
JUL 28,82	JUL 27,82	0.05	<T 0.02	<W 0.005	<T 0.005	<T 0.010	0.114	0.0200
JUL 29,82	JUL 28,82	0.03	<T	0.02	0.010	0.025	0.035	0.0083
JUL 31,82	JUL 30,82	0.53	0.29	0.120	0.050	0.020	0.312	0.1585
AUG 4,82	AUG 3,82	0.21	0.04	0.055	0.045	0.015	0.250	U 0.0041
AUG 10,82	AUG 9,82	0.33	0.14	0.055	0.050	0.055	0.770	0.1549
AUG 20,82	AUG 19,82	0.61	0.06	0.100	0.030	<T 0.010	0.740	0.0195
AUG 21,82	AUG 20,82	*****	0.32	*****	*****	*****	*****	U 0.0004
AUG 22,82	AUG 21,82	*****	0.31	*****	*****	*****	*****	0.0132
AUG 23,82	AUG 22,82	0.10	0.06	0.020	<T 0.010	<W 0.005	0.238	0.0692
AUG 25,82	AUG 24,82	0.05	0.08	0.015	<T 0.010	<T 0.010	0.148	0.0347
AUG 26,82	AUG 25,82	0.05	0.06	0.015	<T 0.010	<T 0.005	0.100	U 0.0089
AUG 28,82	AUG 27,82	0.26	0.12	0.050	0.030	0.025	0.670	0.0603
AUG 29,82	AUG 28,82	0.11	0.07	0.025	<T 0.005	0.015	0.078	0.0029
SEP 2,82	SEP 1,82	0.31	0.32	0.050	0.090	0.090	0.134	0.4074

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR.	SAMPLE HR.	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE	
		START/END HR.	START/END HR.										01-RAIN 02-SNOW 03-COMP/04-ICE
SEP 3,82	SEP 2,82	750	745	515	1600	*	3.4	1	28462	2	1	110	
SEP 4,82	SEP 3,82	745	805	1000	400	1	2.0	1	28463	2	1	74	C
SEP 6,82	SEP 5,82	800	1015	215	1015	1	4.2	1	28464	2	1	154	N
SEP 13,82	SEP 12,82	800	755	1830	1930	1	3.5	1	28465	2	1	98	FJ
SEP 15,82	SEP 14,82	755	750	800	745	1	5.2	1	28466	2	1	97	AFJ
SEP 16,82	SEP 15,82	750	750	200	700	1	1.1	1	28467	2	1	92	FJ
SEP 18,82	SEP 17,82	750	930	2300	600	1	23.1	1	28468	2	1	106	FJ
SEP 21,82	SEP 20,82	800	755	1100	200	1	5.1	1	28469	2	1	96	FJ
SEP 22,82	SEP 21,82	755	750	500	700	1	0.4	1	28470	2	1	117	FJ
SEP 23,82	SEP 22,82	755	750	400	750	1	2.2	1	28471	2	1	99	FJ
SEP 24,82	SEP 23,82	750	750	900	1100	1	0.2	1	28472	2	1	7	EFJ
SEP 25,82	SEP 24,82	750	930	430	700	1	9.1	1	28473	2	1	94	
SEP 26,82	SEP 25,82	930	745	200	745	1	4.2	1	28474	2	1	102	
SEP 28,82	SEP 27,82	745	750	745	1900	1	5.2	1	28475	2	1	78	
OCT 2,82	OCT 1,82	815	815	1000	1200	1	1.1	1	28476	2	1	****	G
OCT 8,82	OCT 7,82	750	750	****	****	1	8.2	1	28477	2	1	90	
OCT 9,82	OCT 8,82	750	845	1600	2000	1	3.0	1	28478	2	1	80	H
OCT 11,82	OCT 10,82	945	945	400	745	1	6.3	1	28479	2	1	102	
OCT 12,82	OCT 11,82	945	745	1100	700	1	3.2	1	28480	2	1	99	
OCT 14,82	OCT 13,82	750	750	****	****	1	1.0	1	28481	2	1	****	GE
OCT 15,82	OCT 14,82	750	750	2200	200	1	14.2	1	28482	2	1	49	H
OCT 16,82	OCT 15,82	750	930	****	****	1	2.0	1	28483	2	1	58	
OCT 17,82	OCT 16,82	930	930	****	****	3	2.0	1	28484	2	1	35	
OCT 21,82	OCT 20,82	745	745	****	****	1	14.1	1	28485	2	1	74	
NOV 1,82	OCT 31,82	800	800	1600	2200	1	2.1	1	28486	2	1	104	
NOV 2,82	NOV 1,82	800	830	1300	830	1	13.3	1	28487	2	1	103	C
NOV 3,82	NOV 2,82	830	830	200	700	1	15.2	1	28488	2	1	95	
NOV 4,82	NOV 3,82	830	830	1700	830	1	16.2	2	28489	2	1	100	
NOV 5,82	NOV 4,82	830	830	930	300	1	9.2	2	28490	2	1	61	
NOV 6,82	NOV 5,82	830	830	1815	100	2	2.3	2	28491	2	1	****	G
NOV 11,82	NOV 10,82	930	930	2200	100	1	0.3	2	28492	2	1	312	N
NOV 12,82	NOV 11,82	930	750	1700	600	2	8.4	2	28493	2	1	100	
NOV 13,82	NOV 12,82	750	830	1100	1600	1	4.3	2	28494	2	1	154	
NOV 15,82	NOV 14,82	750	750	1900	300	2	2.5	2	28495	2	1	****	EK
NOV 21,82	NOV 20,82	800	1130	840	1030	1	17.3	2	28496	2	1	94	
NOV 22,82	NOV 21,82	1130	750	1500	2100	1	0.4	2	28497	2	1	117	
NOV 24,82	NOV 23,82	750	750	****	****	3	19.3	2	28498	2	1	25	N
NOV 27,82	NOV 26,82	800	800	****	****	2	1.3	2	28499	2	1	****	EK
NOV 29,82	NOV 28,82	750	750	1630	750	1	18.2	2	28500	2	1	102	
NOV 30,82	NOV 29,82	750	750	750	750	1	2.2	2	28501	2	1	177	N

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHM

#06

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 3,82	SEP 2,82	240.0	13.2	*****	5.21	0.0444	2.15	0.31
SEP 4,82	SEP 3,82	95.0	4.6	*****	5.71	0.0412	0.65	0.05
SEP 6,82	SEP 5,82	415.0	35.0	4.14	4.13	0.1032	3.85	0.73
SEP 13,82	SEP 12,82	220.0	42.5	4.00	4.04	0.1350	5.35	0.72
SEP 15,82	SEP 14,82	325.0	29.0	4.12	4.17	0.0958	3.10	0.38
SEP 16,82	SEP 15,82	65.0	*****	*****	4.05	0.1246	3.55	0.74
SEP 18,82	SEP 17,82	1575.0	20.0	4.38	4.27	0.0634	1.80	0.28
SEP 21,82	SEP 20,82	315.0	27.8	4.26	4.40	0.0726	3.80	0.74
SEP 22,82	SEP 21,82	30.0	*****	*****	3.93	0.1248	4.00	1.02
SEP 23,82	SEP 22,82	140.0	21.5	*****	4.28	0.0692	1.70	0.38
SEP 24,82	SEP 23,82	U 1.0	*****	*****	*****	*****	*****	*****
SEP 25,82	SEP 24,82	550.0	44.5	3.93	3.93	0.1256	3.80	0.66
SEP 26,82	SEP 25,82	275.0	7.8	4.61	4.74	0.0488	0.40	0.11
SEP 28,82	SEP 27,82	260.0	7.5	4.52	4.83	0.0318	0.60	0.12
OCT 2,82	OCT 1,82	59.0	*****	*****	*****	*****	*****	*****
OCT 8,82	OCT 7,82	475.0	83.0	3.81	3.71	0.2260	8.40	0.93
OCT 9,82	OCT 8,82	155.0	*****	*****	U 6.05	U 0.0452	U 5.95	U 1.63
OCT 11,82	OCT 10,82	415.0	32.6	4.18	4.04	0.0986	3.05	0.36
OCT 12,82	OCT 11,82	205.0	*****	3.77	3.63	0.2360	6.85	1.94
OCT 14,82	OCT 13,82	35.0	*****	*****	*****	*****	*****	*****
OCT 15,82	OCT 14,82	U 450.0	10.2	4.69	4.77	0.0388	1.00	0.21
OCT 16,82	OCT 15,82	75.0	*****	*****	U 5.55	0.0224	0.40	0.03
OCT 17,82	OCT 16,82	U 45.0	*****	*****	5.40	0.0264	0.25	0.03
OCT 21,82	OCT 20,82	670.0	21.6	4.23	4.31	0.0678	2.40	0.28
NOV 1,82	OCT 31,82	140.0	*****	*****	4.30	0.0638	3.35	0.57
NOV 2,82	NOV 1,82	880.0	49.4	*****	4.39	0.0564	1.30	0.23
NOV 3,82	NOV 2,82	935.0	26.5	*****	4.15	0.0832	1.95	0.50
NOV 4,82	NOV 3,82	1040.0	*****	4.85	5.01	0.0214	0.30	0.09
NOV 5,82	NOV 4,82	365.0	15.9	4.43	4.43	0.0524	1.05	0.30
NOV 6,82	NOV 5,82	355.0	10.6	4.61	4.76	0.0354	1.00	0.21
NOV 11,82	NOV 10,82	60.0	*****	*****	3.73	0.2260	7.20	U 2.48
NOV 12,82	NOV 11,82	540.0	38.0	4.11	4.17	0.1076	3.20	0.62
NOV 13,82	NOV 12,82	425.0	20.0	4.42	4.42	0.0690	2.10	0.30
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 21,82	NOV 20,82	1050.0	28.0	4.18	4.22	0.0878	2.45	0.38
NOV 22,82	NOV 21,82	30.0	*****	*****	4.08	0.1154	5.50	0.40
NOV 24,82	NOV 23,82	U 315.0	10.0	4.59	4.62	0.0466	0.55	0.17
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	1195.0	22.0	4.32	4.26	0.0878	2.05	0.36
NOV 30,82	NOV 29,82	250.0	*****	4.36	4.34	0.0672	1.35	0.25

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLDRIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 3,82	SEP 2,82	0.38	0.14	0.030	0.015	0.020	0.650	0.0062
SEP 4,82	SEP 3,82	0.18	0.07	0.025	0.030	0.065	*****	0.0019
SEP 6,82	SEP 5,82	0.56	0.14	0.075	0.030	0.025	0.630	0.0741
SEP 13,82	SEP 12,82	0.80	0.28	0.080	0.085	0.090	0.720	0.0912
SEP 15,82	SEP 14,82	0.13	0.19	0.025	0.070	0.080	0.430	0.0676
SEP 16,82	SEP 15,82	*****	0.20	*****	*****	*****	*****	0.0891
SEP 18,82	SEP 17,82	0.05	0.12	0.010	<W 0.005	0.005	0.222	0.0537
SEP 21,82	SEP 20,82	0.55	0.28	0.085	0.070	0.050	U 1.100	0.0398
SEP 22,82	SEP 21,82	*****	0.31	*****	*****	*****	*****	0.1175
SEP 23,82	SEP 22,82	0.18	0.14	0.025	0.030	0.040	0.114	0.0525
SEP 24,82	SEP 23,82	*****	*****	*****	*****	*****	*****	*****
SEP 25,82	SEP 24,82	0.06	0.11	0.005	0.015	0.010	0.460	0.1175
SEP 26,82	SEP 25,82	0.04	0.11	<W 0.005	0.020	0.015	0.030	0.0182
SEP 28,82	SEP 27,82	0.04	0.07	0.005	0.005	0.005	0.200	0.0148
OCT 2,82	OCT 1,82	*****	*****	*****	*****	*****	*****	*****
OCT 8,82	OCT 7,82	0.33	0.26	0.030	0.040	0.070	0.890	0.1950
OCT 9,82	OCT 8,82	U 2.00	U 0.46	U 0.315	U 0.200	U 0.100	U 1.670	U 0.0009
OCT 11,82	OCT 10,82	0.11	0.14	0.005	0.010	0.040	0.252	0.0912
OCT 12,82	OCT 11,82	0.26	0.33	0.030	0.040	0.050	1.350	0.2344
OCT 14,82	OCT 13,82	*****	*****	*****	*****	*****	*****	*****
OCT 15,82	OCT 14,82	0.10	<W 0.01	0.020	0.030	0.020	U 0.242	0.0170
OCT 16,82	OCT 15,82	*****	0.04	*****	*****	*****	0.058	U 0.0028
OCT 17,82	OCT 16,82	*****	0.26	*****	*****	*****	*****	0.0040
OCT 21,82	OCT 20,82	0.27	0.20	0.060	0.040	0.150	0.220	0.0490
NOV 1,82	OCT 31,82	0.86	0.14	0.210	0.045	0.080	0.198	0.0501
NOV 2,82	NOV 1,82	0.14	<W 0.01	0.015	0.010	0.015	0.108	0.0407
NOV 3,82	NOV 2,82	0.08	0.09	0.020	0.015	0.030	0.264	0.0708
NOV 4,82	NOV 3,82	0.05	0.07	<W 0.005	0.015	0.070	0.060	0.0098
NOV 5,82	NOV 4,82	0.07	0.08	0.005	<W 0.005	0.040	0.220	0.0372
NOV 6,82	NOV 5,82	0.06	0.05	0.005	<W 0.005	0.040	0.220	0.0174
NOV 11,82	NOV 10,82	*****	U 1.13	*****	*****	*****	*****	0.1862
NOV 12,82	NOV 11,82	0.16	0.25	0.020	0.015	0.115	0.334	0.0676
NOV 13,82	NOV 12,82	0.19	0.28	0.040	0.020	0.150	0.232	0.0380
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 21,82	NOV 20,82	0.03	0.13	<W 0.005	<W 0.005	0.035	0.164	0.0603
NOV 22,82	NOV 21,82	*****	*****	*****	*****	*****	*****	0.0832
NOV 24,82	NOV 23,82	0.01	0.07	0.005	<W 0.005	<W 0.005	0.022	0.0240
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	0.33	0.10	0.010	0.020	0.010	0.088	0.0550
NOV 30,82	NOV 29,82	0.05	0.09	0.005	0.015	0.020	0.076	0.0457

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM) 01-STD. 02-NIPHER	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES 04-ON HYDRO	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
DEC 1,82	NOV 30,82	750 750	2300 700	1 0.3	2	28502	2	1	208	N		
DEC 3,82	DEC 2,82	755 755	1600 200	1 31.1	2	28503	2	1	75			
DEC 4,82	DEC 3,82	755 915	930 2330	1 9.4	2	28504	2	1	103			
DEC 5,82	DEC 4,82	915 1100	400 1000	1 2.3	2	28505	2	1	91			
DEC 6,82	DEC 5,82	1100 845	1100 745	1 12.1	2	28506	2	1	108			
DEC 9,82	DEC 8,82	830 830	1500 2200	2 3.5	2	28507	2	1	24			
DEC 11,82	DEC 10,82	945 945	100 200	* 1.1	2	28508	2	1	**** EK	N		
DEC 16,82	DEC 15,82	800 1700	1600 1500	3 17.1	2	28509	2	1	120			
DEC 19,82	DEC 18,82	800 1100	100 900	2 2.5	2	28510	2	1	40	N		
DEC 20,82	DEC 19,82	830 1100	200 700	2 5.3	2	28511	2	1	**** KE			
DEC 21,82	DEC 20,82	830 755	1000 700	1 ****	2	28512	2	1	****			
DEC 24,82	DEC 23,82	755 755	1700 600	1 10.2	2	28513	2	1	81			
DEC 25,82	DEC 24,82	755 930	1600 900	1 12.2	2	28514	2	1	93			
DEC 26,82	DEC 25,82	930 1015	1400 2100	1 1.5	2	28515	2	1	179	N		
DEC 28,82	DEC 27,82	915 915	2200 915	1 3.2	2	28516	2	1	95			
DEC 30,82	DEC 29,82	**** ****	**** ****	* 3.1	2	28517	2	1	**** EK			
JAN 1,83	DEC 31,82	1030 1030	1600 200	* 3.1	2	28518	2	1	**** EK			

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

PAGE 1 8

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
DEC 1+82	NOV 30,82	40.0	*****	*****	3.62	0.2820	7.65	> 2.00
DEC 3+82	DEC 2,82	1510.0	20.5	4.35	4.34	0.0748	1.90	0.17
DEC 4+82	DEC 3,82	625.0	17.5	4.39	4.37	0.0694	1.10	0.30
DEC 5+82	DEC 4,82	135.0	*****	*****	U 3.90	U 0.1326	U 3.05	U 0.56
DEC 6+82	DEC 5,82	845.0	15.5	4.48	4.43	0.0606	1.20	0.18
DEC 9+82	DEC 8,82	U 55.0	*****	*****	4.64	0.0490	2.00	0.44
DEC 11+82	DEC 10,82	*****	*****	*****	*****	*****	*****	*****
DEC 16+82	DEC 15,82	1322.0	23.6	4.19	4.35	0.0736	1.70	0.34
DEC 19+82	DEC 18,82	U 65.0	*****	*****	4.46	0.0570	2.45	0.92
DEC 20+82	DEC 19,82	*****	*****	*****	*****	*****	*****	*****
DEC 21+82	DEC 20,82	34.0	*****	*****	4.33	0.0776	0.80	0.74
DEC 24+82	DEC 23,82	532.0	46.0	3.99	3.98	0.1428	3.90	0.61
DEC 25+82	DEC 24,82	734.0	32.6	4.16	4.13	0.1014	2.50	0.38
DEC 26+82	DEC 25,82	173.0	*****	*****	4.62	0.0526	2.40	0.28
DEC 28+82	DEC 27,82	195.0	*****	4.24	4.24	0.0854	1.90	0.37
DEC 30+82	DEC 29,82	*****	*****	*****	*****	*****	*****	*****
JAN 1+83	DEC 31,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
DEC 1,82	NOV 30,82	*****	0.63	*****	*****	*****	*****	0.2399
DEC 3,82	DEC 2,82	0.03	0.21	0.010	<T 0.005	0.080	0.066	0.0457
DEC 4,82	DEC 3,82	0.04	0.06	0.005	<T 0.005	0.020	0.128	0.0427
DEC 5,82	DEC 4,82	0.11	0.34	0.025	0.025	0.175	0.160	U 0.1259
DEC 6,82	DEC 5,82	0.02	0.09	0.005	0.015	0.040	0.134	0.0372
DEC 9,82	DEC 8,82	*****	0.26	*****	*****	*****	*****	0.0229
DEC 11,82	DEC 10,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	0.07	0.20	0.010	0.010	0.010	0.110	0.0447
DEC 19,82	DEC 18,82	U 1.52	U 0.70	U 0.150	0.030	0.380	*****	0.0347
DEC 20,82	DEC 19,82	*****	*****	*****	*****	*****	*****	*****
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	0.0468
DEC 24,82	DEC 23,82	0.13	0.19	0.025	0.040	0.075	0.360	0.1047
DEC 25,82	DEC 24,82	0.06	0.34	0.025	0.025	0.150	0.136	0.0741
DEC 26,82	DEC 25,82	0.34	0.16	0.040	0.035	0.170	0.430	0.0240
DEC 28,82	DEC 27,82	0.04	0.22	0.020	0.015	0.130	0.108	0.0575
DEC 30,82	DEC 29,82	*****	*****	*****	*****	*****	*****	*****
JAN 1,83	DEC 31,82	*****	*****	*****	*****	*****	*****	*****

PART V

SOUTHEASTERN REGION

DAILY PRECIPITATION CHEMISTRY LISTINGS

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/SES #11

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS					
											01-RAIN	01-STD.	02-APIOS	01-MOE	FIELD	OFFICE
											02-SNOW	02-NIPHER	03-SPECIAL	03-AES	04-ON HYDRO	
03-COMP/04-ICE																
JAN 3,82	JAN 2,82	830 920	100 600	*	****	2	23190	2	1	****	E					
JAN 5,82	JAN 3,82	830 850	100 500	3	38.5	2	23192	2	1	****	HG	Z				
JAN 7,82	JAN 6,82	830 950	2400 600	2	****	*	23194	2	1	****						
JAN 9,82	JAN 8,82	900 1030	1745 1000	2	3.3	2	23196	2	1	104						
JAN 10,82	JAN 9,82	1030 900	100 600	2	****	2	23198	2	1	****						
JAN 11,82	JAN 10,82	900 1300	1630 1000	*	****	2	23200	2	1	****						
JAN 14,82	JAN 13,82	900 750	1530 500	2	0.6	2	23202	2	1	275		N				
JAN 16,82	JAN 15,82	810 850	100 850	2	****	2	23204	2	1	****						
JAN 17,82	JAN 16,82	850 1200	850 1600	*	2.3	2	23206	2	1	38		N				
JAN 20,82	JAN 19,82	810 830	2200 500	2	****	2	23208	2	1	****						
JAN 23,82	JAN 22,82	830 920	100 920	2	5.8	2	23210	2	1	102						
JAN 24,82	JAN 23,82	920 850	920 1430	3	8.5	2	23212	2	1	94						
JAN 29,82	JAN 28,82	900 850	730 850	2	****	2	23214	2	1	****						
JAN 30,82	JAN 29,82	850 1000	730 1000	2	2.9	2	23216	2	1	138		N				
JAN 31,82	JAN 30,82	1000 850	1000 1330	2	0.9	2	23218	2	1	296		N				
FEB 1,82	JAN 31,82	850 1000	1400 1000	2	30.5	2	23220	2	1	81						
FEB 3,82	FEB 2,82	930 900	500 830	3	****	2	23222	2	1	****						
FEB 4,82	FEB 3,82	900 920	1400 200	3	10.4	2	23224	2	1	101		J				
FEB 6,82	FEB 5,82	920 1040	1700 500	2	5.0	2	23226	2	1	107		J				
FEB 9,82	FEB 8,82	900 915	300 915	2	****	*	23228	2	1	****						
FEB 10,82	FEB 9,82	915 915	915 1500	2	0.8	2	23230	2	1	134		N				
FEB 15,82	FEB 14,82	950 1030	100 600	2	****	2	23232	2	1	****						
FEB 19,82	FEB 18,82	900 930	430 930	2	1.4	2	23234	2	1	155		N				
FEB 20,82	FEB 19,82	930 1000	930 1700	3	****	2	23236	2	1	****						
FEB 23,82	FEB 22,82	900 1000	400 930	2	****	2	23238	2	1	****						
MAR 2,82	MAR 1,82	900 930	1700 1900	2	0.3	2	23240	2	1	****	GH					
MAR 5,82	MAR 4,82	900 1000	1400 2200	3	8.7	2	23242	2	1	121		N				
MAR 7,82	MAR 6,82	900 1200	200 1000	2	3.0	2	23244	2	1	84						
MAR 10,82	MAR 9,82	700 830	700 1700	2	1.9	2	23246	2	1	212		N				
MAR 11,82	MAR 10,82	830 845	2100 300	3	2.9	2	23247	2	1	30						
MAR 12,82	MAR 11,82	845 1600	1300 1800	1	3.9	2	23248	2	1	100						
MAR 13,82	MAR 12,82	1600 815	600 815	1	****	*	23250	2	1	****						
MAR 14,82	MAR 13,82	815 715	815 1100	3	8.1	2	23252	2	1	104						
MAR 17,82	MAR 16,82	830 900	1800 900	2	10.4	2	23254	2	1	93						
MAR 18,82	MAR 17,82	900 920	900 1100	2	****	*	23256	2	1	****						
MAR 19,82	MAR 18,82	920 730	1800 2400	2	5.1	2	23258	2	1	****	GH	HM				
MAR 22,82	MAR 21,82	800 700	1200 1400	3	11.3	2	23260	2	1	92						
MAR 26,82	MAR 25,82	700 705	1900 705	3	13.7	2	23262	2	1	101						
MAR 27,82	MAR 26,82	705 700	705 2330	3	0.9	2	23264	2	1	32		N				
MAR 30,82	MAR 29,82	700 1000	100 600	1	4.5	2	23266	2	1	111						

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/SES #11

PAGE : 2

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 3,82	JAN 2,82	4.0	*****	*****	*****	*****	*****	*****
JAN 5,82	JAN 3,82	3924.0	14.8	4.48	4.55	0.0694	1.15	0.20
JAN 7,82	JAN 6,82	48.0	*****	*****	U 4.01	*****	4.40	U 3.72
JAN 9,82	JAN 8,82	568.0	21.4	4.34	4.35	0.0846	0.60	0.67
JAN 10,82	JAN 9,82	39.0	*****	*****	*****	*****	0.55	0.34
JAN 11,82	JAN 10,82	845.0	7.8	U 5.38	U 5.87	0.0436	0.55	0.24
JAN 14,82	JAN 13,82	271.0	18.0	*****	4.41	0.0890	0.70	0.40
JAN 16,82	JAN 15,82	63.0	*****	*****	4.18	*****	1.00	0.95
JAN 17,82	JAN 16,82	U 144.0	38.5	*****	4.09	0.1276	2.25	0.97
JAN 20,82	JAN 19,82	100.0	*****	*****	4.02	*****	2.05	1.51
JAN 23,82	JAN 22,82	971.0	7.1	4.70	5.00	0.0508	0.60	0.15
JAN 24,82	JAN 23,82	1321.0	18.2	4.28	4.40	0.0690	1.35	0.33
JAN 29,82	JAN 28,82	50.0	*****	*****	U 3.75	*****	U 16.20	U 3.63
JAN 30,82	JAN 29,82	659.0	13.0	4.53	4.51	0.0608	0.25	0.36
JAN 31,82	JAN 30,82	437.0	26.6	4.24	4.18	0.0990	1.60	0.41
FEB 1,82	JAN 31,82	4063.0	15.2	4.42	4.40	0.0616	0.65	0.31
FEB 3,82	FEB 2,82	209.0	*****	*****	4.10	*****	2.20	0.80
FEB 4,82	FEB 3,82	1725.0	20.8	U 3.83	4.22	0.0818	1.25	0.32
FEB 6,82	FER 5,82	885.0	41.7	3.68	3.95	0.1346	1.10	1.16
FEB 9,82	FER 8,82	247.0	36.4	*****	4.03	0.1180	0.45	1.17
FEB 10,82	FER 9,82	177.0	*****	*****	3.91	*****	1.00	1.18
FEB 15,82	FER 14,82	51.0	*****	*****	4.32	*****	1.05	0.45
FEB 19,82	FER 18,82	356.0	40.5	*****	4.08	0.1204	2.30	1.15
FEB 20,82	FER 19,82	55.0	*****	*****	3.15	*****	> 10.00	> 2.00
FEB 23,82	FER 22,82	172.0	68.0	*****	4.02	*****	6.20	2.13
MAR 2,82	MAR 1,82	48.0	*****	*****	U 3.72	*****	U 11.50	U 4.50
MAR 5,82	MAR 4,82	1736.0	45.0	*****	3.99	0.1454	2.50	0.97
MAR 7,82	MAR 6,82	415.0	47.3	*****	3.98	0.1528	2.00	1.17
MAR 10,82	MAR 9,82	663.0	40.3	*****	4.04	0.1238	1.20	1.08
MAR 11,82	MAR 10,82	U 147.0	*****	*****	3.43	*****	6.10	3.92
MAR 12,82	MAR 11,82	644.0	34.4	*****	4.14	0.1276	2.20	0.53
MAR 13,82	MAR 12,82	53.0	*****	*****	3.32	*****	U 25.00	U 2.66
MAR 14,82	MAR 13,82	1386.0	32.9	*****	4.19	0.1080	3.20	0.34
MAR 17,82	MAR 16,82	1599.0	21.2	*****	4.45	0.0786	1.95	0.43
MAR 18,82	MAR 17,82	84.0	*****	*****	3.95	*****	3.20	0.64
MAR 19,82	MAR 18,82	1000.0	62.2	*****	3.88	0.1418	2.00	< W 0.01
MAR 22,82	MAR 21,82	1710.0	60.0	*****	3.95	0.1620	5.35	0.96
MAR 26,82	MAR 25,82	2290.0	102.0	*****	3.79	0.2444	7.80	2.42
MAR 27,82	MAR 26,82	U 48.0	*****	*****	4.19	0.1104	4.35	0.34
MAR 30,82	MAR 29,82	824.0	36.0	*****	4.21	0.1088	3.20	0.74

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/SES

#11

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 3.82	JAN 2.82	*****	*****	*****	*****	*****	*****	*****
JAN 5.82	JAN 3.82	0.07	0.07	0.010	0.010	0.020	0.156	0.0282
JAN 7.82	JAN 6.82	*****	U 2.96	0.32	0.010	*****	*****	U 0.0977
JAN 9.82	JAN 8.82	0.18	0.32	0.010	0.010	0.100	0.110	0.0447
JAN 10.82	JAN 9.82	*****	0.41	*****	*****	*****	*****	*****
JAN 11.82	JAN 10.82	U 0.68	0.48	U 0.105	0.030	0.260	0.020	U 0.0013
JAN 14.82	JAN 13.82	0.04	0.37	0.005	0.010	0.040	0.196	0.0389
JAN 16.82	JAN 15.82	*****	0.93	*****	*****	*****	*****	*****
JAN 17.82	JAN 16.82	0.29	0.35	0.025	0.040	0.110	0.302	0.0661
JAN 20.82	JAN 19.82	0.50	U 1.13	0.075	0.060	U 0.740	0.286	0.0813
JAN 23.82	JAN 22.82	0.06	0.08	0.020	0.020	0.050	0.204	0.0955
JAN 24.82	JAN 23.82	0.16	0.12	0.025	0.030	0.060	0.134	0.0100
JAN 29.82	JAN 28.82	*****	U 2.42	*****	*****	*****	*****	0.0398
JAN 30.82	JAN 29.82	0.12	0.28	0.010	0.010	0.150	0.020	U 0.1778
FEB 1.82	JAN 31.82	0.02	0.14	<T 0.005	0.020	0.030	0.190	0.0309
FEB 3.82	FEB 2.82	0.05	0.05	0.005	0.030	0.030	0.026	0.0661
FEB 4.82	FEB 3.82	0.18	0.22	0.020	0.050	0.140	0.242	0.0398
FEB 6.82	FEB 5.82	0.01	0.17	<T 0.005	0.005	0.020	0.124	0.0794
FEB 9.82	FEB 8.82	0.17	0.26	<T 0.005	0.005	0.055	0.062	0.0603
FEB 10.82	FEB 9.82	0.24	0.45	<T 0.030	0.020	0.275	0.024	0.1122
FEB 15.82	FEB 14.82	0.09	0.57	<T 0.005	0.005	0.080	0.036	0.0933
FEB 19.82	FEB 18.82	0.36	0.58	*****	*****	*****	*****	0.1230
FEB 20.82	FEB 19.82	*****	0.28	0.105	0.015	0.445	0.282	0.0479
FEB 23.82	FEB 22.82	U 1.01	U 1.12	*****	*****	*****	*****	0.0832
MAR 2.82	MAR 1.82	*****	0.69	0.105	0.055	0.145	*****	0.7079
MAR 5.82	MAR 4.82	0.08	2.20	*****	*****	*****	2.000	0.0955
MAR 7.82	MAR 6.82	0.14	0.14	0.005	0.015	0.055	*****	U 0.1905
MAR 10.82	MAR 9.82	0.14	0.24	0.025	0.010	0.125	0.318	0.1023
MAR 11.82	MAR 10.82	0.12	0.36	0.020	0.055	0.080	0.270	0.1047
MAR 12.82	MAR 11.82	0.58	0.74	0.075	0.040	0.360	0.322	0.0912
MAR 13.82	MAR 12.82	0.03	0.17	0.015	0.010	0.080	0.780	0.3715
MAR 14.82	MAR 13.82	*****	U 1.78	*****	*****	*****	0.222	0.0724
MAR 17.82	MAR 16.82	0.10	0.14	0.040	0.025	0.085	*****	0.4786
MAR 18.82	MAR 17.82	0.31	0.04	0.040	0.015	0.035	0.348	0.0646
MAR 19.82	MAR 18.82	0.40	0.20	0.040	0.030	0.120	0.328	0.0355
MAR 22.82	MAR 21.82	0.23	U 1.50	0.020	0.010	0.030	0.210	0.1122
MAR 26.82	MAR 25.82	0.35	0.10	0.035	0.030	0.055	0.660	0.1318
MAR 27.82	MAR 26.82	0.44	0.31	0.090	0.030	0.130	1.510	0.1122
MAR 30.82	MAR 29.82	*****	0.54	0.22	*****	*****	*****	0.1522
		0.54	0.31	0.110	0.015	0.190	0.282	0.0646
								0.0617

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/SES #11

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END	PRECIP START/END	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											HR.	HR.
MAR 31,82	MAR 30,82	1000 800	1800 100	1	14.5	2	23268	2	1	102		
APR 4,82	APR 3,82	630 1200	630 1200	3	25.6	2	23270	2	1	100		
APR 5,82	APR 4,82	1200 900	1300 200	2	1.1	2	23272	2	1	34	N	

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAR 31+82	MAR 30,82	2435.0	17.9	*****	4.74	0.0510	2.50	0.46
APR 4+82	APR 3,82	4225.0	14.4	*****	4.65	0.0462	1.25	0.21
APR 5+82	APR 4,82	U 62.0	*****	*****	U 6.16	0.0250	2.25	0.44

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAR 31,82	MAR 30,82	0.37	0.10	0.055	0.010	0.045	0.560	0.0182
APR 4,82	APR 3,82	0.37	0.03	0.030	0.020	0.025	0.096	0.0224
APR 5,82	APR 4,82	*****	0.55	*****	*****	*****	*****	U 0.0007

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END		PRECIP START/END		SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE		SUBPROJECT CODE 01-MOE 03-SPECIAL 04-ON HYDRO	SAMPLER EFFICI- ENCY (%)	COMMENTS	
		HR.	HR.	HR.	HR.					02-APIOS	03-AES			FIELD OFFICE	
APR 12,82	APR 11,82	600	750	630	1800	3	1.2	1	23274	2	1	24			
APR 13,82	APR 12,82	750	1100	1900	1000	1	2.6	1	23275	2	1	42	B	N	
APR 18,82	APR 17,82	700	1200	1030	1750	1	6.8	1	23276	2	1	16			
APR 21,82	APR 20,82	730	1000	900	200	1	12.5	1	23277	2	1	****	GH		
MAY 9,82	MAY 8,82	600	930	800	1700	1	****	*	23280	2	1	****			
MAY 20,82	MAY 19,82	700	730	1000	1300	1	5.2	1	23281	2	1	95			
MAY 21,82	MAY 20,82	730	730	1000	1630	1	5.4	1	23282	2	1	90			
MAY 23,82	MAY 22,82	730	1200	2000	1200	1	2.6	1	23283	2	1	28		N	
MAY 24,82	MAY 23,82	1200	850	1200	850	1	5.0	1	23284	2	1	87		T	
MAY 25,82	MAY 24,82	850	900	850	1000	1	2.2	1	23285	2	1	95			
MAY 29,82	MAY 28,82	730	800	1030	800	1	18.0	1	23286	2	1	100			
MAY 31,82	MAY 30,82	800	900	1800	2300	1	4.2	1	23287	2	1	84		T	
JUN 2,82	JUN 1,82	800	730	600	2300	1	23.2	1	23288	2	1	71		T	
JUN 6,82	JUN 5,82	730	930	1400	930	1	20.6	1	23289	2	1	97		HC	
JUN 7,82	JUN 6,82	930	930	930	1800	1	4.6	1	23290	2	1	79		H	
JUN 11,82	JUN 10,82	730	730	100	500	1	3.8	1	23291	2	1	111			
JUN 14,82	JUN 13,82	730	900	900	100	1	0.9	1	23292	2	1	190		NT	
JUN 16,82	JUN 15,82	900	900	1600	200	1	7.0	1	23293	2	1	114	J	T	
JUN 19,82	JUN 18,82	730	900	100	700	1	3.0	1	23294	2	1	126		N	
JUN 20,82	JUN 19,82	900	930	1600	1800	1	5.6	1	23295	2	1	115			
JUN 21,82	JUN 20,82	930	900	1500	800	1	18.6	1	23296	2	1	108			
JUN 22,82	JUN 21,82	900	830	1300	600	1	4.2	1	23297	2	1	116			
JUN 23,82	JUN 22,82	830	800	2300	400	*	0.4	2	23298	2	1	54	J		
JUN 24,82	JUN 23,82	800	730	1200	100	1	5.3	2	23299	2	1	94		JHCM	
JUN 26,82	JUN 25,82	800	715	****	****	*	0.7	2	23300	2	1	6		N	
JUL 3,82	JUL 2,82	800	800	2200	200	1	2.0	2	23301	2	1	56	BCD	J	
JUL 12,82	JUL 11,82	800	830	2000	2300	1	24.1	1	23302	2	1	104			
JUL 18,82	JUL 17,82	800	900	1830	2100	1	14.7	1	23303	2	1	100			
JUL 20,82	JUL 19,82	800	730	1230	1600	1	6.0	1	23304	2	1	93			
JUL 28,82	JUL 27,82	800	756	100	756	1	6.7	1	23308	2	1	108			
JUL 29,82	JUL 28,82	756	900	756	1930	1	16.3	1	23309	2	1	98			
JUL 31,82	JUL 30,82	800	830	905	300	1	22.0	1	23310	2	1	101		J	
AUG 1,82	JUL 31,82	830	900	2100	2300	1	1.4	1	23311	2	1	80			
AUG 3,82	AUG 2,82	800	730	1630	1930	1	1.6	1	23312	2	1	78			
AUG 20,82	AUG 19,82	730	745	2000	300	1	7.4	1	23313	2	1	93			
AUG 23,82	AUG 22,82	800	930	2030	700	1	5.2	1	23314	2	1	94			
AUG 25,82	AUG 24,82	930	800	300	800	1	22.5	1	23315	2	1	****	FE		
AUG 26,82	AUG 25,82	800	700	800	1200	1	60.6	1	23316	2	1	102			
AUG 28,82	AUG 27,82	700	1200	1545	1700	1	8.2	1	23317	2	1	102			
AUG 29,82	AUG 28,82	1200	800	1445	1645	1	2.5	1	23318	2	1	86		M	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
APR 12,82	APR 11,82	U 19.0	*****	*****	4.07	0.1202	*****	*****
APR 13,82	APR 12,82	U 70.0	*****	*****	4.08	0.1210	5.10	0.85
APR 18,82	APR 17,82	U 70.0	*****	*****	4.06	0.1176	4.25	0.82
APR 21,82	APR 20,82	666.0	*****	*****	4.18	0.0910	3.20	0.62
MAY 9,82	MAY 8,82	1705.0	36.2	*****	4.21	0.1092	3.60	0.35
MAY 20,82	MAY 19,82	319.0	U 173.0	*****	3.37	0.4432	15.30	U 2.78
MAY 21,82	MAY 20,82	313.0	8.4	*****	4.98	0.0278	0.95	0.11
MAY 23,82	MAY 22,82	U 48.0	*****	*****	4.30	0.0922	2.80	0.38
MAY 24,82	MAY 23,82	279.0	68.0	*****	3.72	0.1772	6.30	0.76
MAY 25,82	MAY 24,82	134.0	*****	*****	4.09	0.0900	3.05	0.22
MAY 29,82	MAY 28,82	1154.0	22.0	*****	4.33	0.0566	1.40	0.31
MAY 31,82	MAY 30,82	227.0	45.7	*****	3.91	0.1228	4.50	0.45
JUN 2,82	JUN 1,82	1070.0	68.0	*****	3.71	0.1808	6.95	0.63
JUN 6,82	JUN 5,82	1294.0	4.2	*****	5.66	0.0214	0.35	0.04
JUN 7,82	JUN 6,82	234.0	11.1	*****	5.03	0.0332	1.40	0.15
JUN 11,82	JUN 10,82	271.0	64.5	*****	3.80	0.1670	6.05	0.99
JUN 14,82	JUN 13,82	110.0	67.0	*****	3.72	0.1630	4.85	U 1.41
JUN 16,82	JUN 15,82	513.0	100.0	*****	3.61	0.2392	9.50	1.33
JUN 19,82	JUN 18,82	244.0	129.0	*****	3.52	0.3024	12.20	2.07
JUN 20,82	JUN 19,82	413.0	89.0	*****	3.67	0.2140	7.45	0.99
JUN 21,82	JUN 20,82	1292.0	37.6	*****	4.08	0.1058	3.15	0.53
JUN 22,82	JUN 21,82	314.0	10.8	*****	4.70	0.0364	1.00	0.19
JUN 23,82	JUN 22,82	14.0	*****	3.30	3.62	U 0.3240	*****	*****
JUN 24,82	JUN 23,82	320.0	4.2	U 5.50	U 6.50	0.0254	0.30	0.03
JUN 26,82	JUN 25,82	U 3.0	*****	*****	*****	*****	*****	*****
JUL 3,82	JUL 2,82	72.0	*****	U 6.93	U 8.14	*****	U 12.50	0.71
JUL 12,82	JUL 11,82	1622.0	45.0	4.05	3.99	0.1268	5.10	0.33
JUL 18,82	JUL 17,82	950.0	65.0	4.01	3.88	0.1526	6.75	0.47
JUL 20,82	JUL 19,82	358.0	25.1	4.46	4.45	0.0536	2.50	0.47
JUL 28,82	JUL 27,82	465.0	10.3	4.62	4.69	0.0308	0.95	0.14
JUL 29,82	JUL 28,82	1034.0	5.2	4.87	5.10	0.0214	0.30	0.07
JUL 31,82	JUL 30,82	1426.0	36.2	4.36	4.07	0.0976	2.85	0.47
AUG 1,82	JUL 31,82	72.0	*****	*****	3.87	0.1546	6.30	0.68
AUG 3,82	AUG 2,82	80.0	*****	*****	U 6.22	0.0336	2.30	0.75
AUG 20,82	AUG 19,82	444.0	35.5	4.32	4.35	0.0754	5.90	0.74
AUG 23,82	AUG 22,82	314.0	38.5	4.10	4.03	0.1070	3.25	0.53
AUG 25,82	AUG 24,82	*****	*****	*****	*****	*****	*****	*****
AUG 26,82	AUG 25,82	3994.0	12.6	4.59	4.54	0.0548	1.30	0.06
AUG 28,82	AUG 27,82	539.0	30.0	4.24	4.16	0.0928	3.10	0.31
AUG 29,82	AUG 28,82	139.0	*****	*****	5.32	0.0248	< T 0.05	0.03

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHM #11

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
APR 12+82	APR 11,82	*****	*****	*****	*****	*****	*****	0.0851
APR 13+82	APR 12,82	*****	0.24	*****	*****	*****	*****	0.0832
APR 18+82	APR 17,82	0.38	0.26	0.060	0.050	0.105	0.390	0.0871
APR 21+82	APR 20,82	*****	0.16	*****	*****	*****	*****	0.0661
MAY 9+82	MAY 8,82	0.07	0.07	0.015	<T 0.010	<T 0.010	0.362	0.0617
MAY 20+82	MAY 19,82	0.73	0.68	0.095	0.090	0.045	0.940	0.4266
MAY 21+82	MAY 20,82	0.09	<T	0.02	0.015	0.050	<T 0.010	0.218
MAY 23+82	MAY 22,82	*****	0.06	*****	*****	*****	*****	0.0501
MAY 24+82	MAY 23,82	0.06	0.07	0.005	0.040	<T 0.010	0.348	0.1905
MAY 25+82	MAY 24,82	0.03	0.02	<W 0.005	<T 0.015	<T 0.010	0.148	0.0813
MAY 29+82	MAY 28,82	<T 0.01	0.04	<W 0.005	<T 0.010	<T 0.010	0.094	0.0468
MAY 31+82	MAY 30,82	0.03	0.07	0.005	0.050	0.015	0.410	0.1230
JUN 2+82	JUN 1,82	0.07	0.13	0.010	0.040	0.015	0.450	0.1950
JUN 6+82	JUN 5,82	0.05	0.02	0.010	0.035	0.050	0.134	0.0022
JUN 7+82	JUN 6,82	0.05	0.07	0.010	0.050	0.055	0.480	0.0093
JUN 11+82	JUN 10,82	0.25	0.16	0.045	0.020	0.035	0.720	0.1585
JUN 14+82	JUN 13,82	*****	0.29	*****	*****	*****	*****	0.1905
JUN 16+82	JUN 15,82	0.77	0.36	0.130	0.125	0.040	0.650	0.2455
JUN 19+82	JUN 18,82	0.46	0.54	0.075	0.045	0.035	U 1.810	0.3020
JUN 20+82	JUN 19,82	0.02	0.22	0.015	0.020	0.015	0.540	0.2138
JUN 21+82	JUN 20,82	0.02	0.09	0.015	<W 0.005	<T 0.010	0.450	0.0832
JUN 22+82	JUN 21,82	<T 0.01	0.02	0.015	<W 0.005	<T 0.010	0.162	0.0200
JUN 23+82	JUN 22,82	*****	*****	*****	*****	*****	*****	0.2399
JUN 24+82	JUN 23,82	0.09	<W 0.01	0.025	0.040	0.030	0.042	U 0.0003
JUN 26+82	JUN 25,82	*****	*****	*****	*****	*****	*****	*****
JUL 3+82	JUL 2,82	*****	U 0.91	*****	*****	*****	*****	U 0.0000
JUL 12+82	JUL 11,82	0.06	0.06	0.010	<T 0.010	0.020	0.490	0.1023
JUL 18+82	JUL 17,82	0.20	0.08	0.040	0.080	0.020	0.294	0.1318
JUL 20+82	JUL 19,82	0.23	0.06	0.025	0.085	0.025	0.510	0.0355
JUL 28+82	JUL 27,82	0.13	0.04	0.025	0.040	0.025	0.144	0.0204
JUL 29+82	JUL 28,82	0.02	<T 0.02	0.015	<T 0.010	<T 0.010	0.078	0.0079
JUL 31+82	JUL 30,82	0.10	0.12	0.020	0.010	<T 0.005	0.256	0.0851
AUG 1+82	JUL 31,82	*****	0.15	*****	*****	*****	*****	0.1349
AUG 3+82	AUG 2,82	*****	0.15	*****	*****	*****	*****	U 0.0006
AUG 20+82	AUG 19,82	1.03	0.15	0.195	0.065	<T 0.010	1.030	0.0447
AUG 23+82	AUG 22,82	0.10	0.09	0.025	0.065	<T 0.005	0.228	0.0933
AUG 25+82	AUG 24,82	*****	*****	*****	*****	*****	*****	*****
AUG 26+82	AUG 25,82	0.10	<T 0.02	<W 0.005	<T 0.010	<W 0.005	0.112	0.0288
AUG 28+82	AUG 27,82	0.13	0.06	0.025	<T 0.015	<T 0.005	0.278	0.0692
AUG 29+82	AUG 28,82	0.04	0.03	0.015	<T 0.005	<T 0.005	0.006	0.0048

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHM #11

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END HR. HR.	START/END HR. HR.	01-RAIN	02-SNOW								
		03-COMP/04-ICE											
SEP 2,82	SEP 1,82	800	900	1930	200	1	21.6	1	23319	2	1	102	
SEP 7,82	SEP 6,82	800	1000	1200	1700	1	7.6	1	23320	2	1	92	
SEP 15,82	SEP 14,82	800	730	1500	1700	1	6.0	1	23321	2	1	76	T
SEP 19,82	SEP 18,82	600	900	630	800	1	10.6	1	23322	2	1	69	HM
SEP 21,82	SEP 20,82	700	800	200	600	1	6.5	1	23323	2	1	31	NT
SEP 23,82	SEP 22,82	800	800	100	800	1	2.6	1	23324	2	1	56	
SEP 24,82	SEP 23,82	800	750	800	1630	1	2.8	1	23325	2	1	65	
SEP 27,82	SEP 26,82	800	740	400	740	1	8.8	1	23326	2	1	92	
SEP 28,82	SEP 27,82	740	750	740	900	1	4.6	1	23327	2	1	73	
OCT 2,82	OCT 1,82	800	800	1000	1400	1	5.6	1	23328	2	1	81	J
OCT 8,82	OCT 7,82	800	900	1715	2130	1	34.0	1	23329	2	1	103	A
OCT 13,82	OCT 12,82	800	900	1400	1800	1	1.0	1	23330	2	1	35	NT
OCT 14,82	OCT 13,82	900	800	2000	600	1	8.2	1	23331	2	1	97	
OCT 15,82	OCT 14,82	800	800	100	600	1	0.9	1	23332	2	1	55	
OCT 17,82	OCT 16,82	800	1000	815	1900	1	2.2	1	23333	2	1	85	
OCT 21,82	OCT 20,82	800	800	1730	1815	1	5.6	1	23334	2	1	91	
NOV 1,82	OCT 31,82	800	900	1800	600	1	3.4	1	23335	2	1	91	
NOV 2,82	NOV 1,82	900	830	1730	830	1	8.9	2	23336	2	1	****	E
NOV 3,82	NOV 2,82	900	900	1500	630	1	1.5	2	23337	2	1	182	N
NOV 4,82	NOV 3,82	830	900	1830	830	1	30.5	2	23338	2	1	99	
NOV 5,82	NOV 4,82	830	830	830	1000	1	22.7	2	23339	2	1	67	
NOV 6,82	NOV 5,82	830	830	1800	2400	1	4.7	2	23340	2	1	87	
NOV 12,82	NOV 11,82	900	930	1830	830	1	1.7	2	23341	2	1	86	
NOV 13,82	NOV 12,82	930	900	1400	1700	1	10.6	2	23342	2	1	106	
NOV 21,82	NOV 20,82	900	1200	1800	1200	1	3.1	2	23343	2	1	96	
NOV 22,82	NOV 21,82	1200	900	1200	2300	1	1.2	2	23344	2	1	117	
NOV 23,82	NOV 22,82	900	930	600	930	1	0.5	2	23345	2	1	28	N
NOV 24,82	NOV 23,82	930	830	930	830	1	13.9	2	23346	2	1	96	
NOV 27,82	NOV 26,82	900	1000	900	1900	2	****	*	23347	2	1	****	
NOV 29,82	NOV 28,82	900	930	1600	930	1	8.1	2	23348	2	1	93	
NOV 30,82	NOV 29,82	930	900	930	1000	1	2.7	2	23349	2	1	110	
DEC 1,82	NOV 30,82	900	930	2400	600	1	0.5	2	23350	2	1	59	T
DEC 3,82	DEC 2,82	930	900	2200	1000	1	3.5	2	23351	2	1	98	
DEC 4,82	DEC 3,82	930	1200	130	600	1	3.2	2	23352	2	1	112	
DEC 5,82	DEC 4,82	1200	900	100	900	1	1.3	2	23353	2	1	82	
DEC 6,82	DEC 5,82	900	830	900	1300	1	4.0	2	23354	2	1	116	
DEC 7,82	DEC 6,82	800	745	1100	1630	1	0.3	2	23355	2	1	150	N
DEC 16,82	DEC 15,82	900	900	1900	500	1	17.5	2	23356	2	1	78	J
DEC 17,82	DEC 16,82	900	900	1730	200	2	4.1	2	23357	2	1	134	N
DEC 25,82	DEC 24,82	1000	600	700	900	1	7.7	2	23358	2	1	78	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 2,82	SEP 1,82	1415.0	38.8	4.00	4.05	0.1060	3.55	0.33
SEP 7,82	SEP 6,82	452.0	51.0	3.86	3.95	0.1412	4.80	0.45
SEP 15,82	SEP 14,82	296.0	107.0	3.62	3.51	0.2780	8.15	1.44
SEP 19,82	SEP 18,82	473.0	23.3	4.31	4.19	0.0750	2.00	0.28
SEP 21,82	SEP 20,82	U 130.0	85.0	*****	3.64	0.2280	6.95	2.07
SEP 23,82	SEP 22,82	94.0	68.0	*****	4.30	0.0594	2.25	0.18
SEP 24,82	SEP 23,82	117.0	106.0	*****	4.10	0.0944	3.65	0.66
SEP 27,82	SEP 26,82	524.0	5.9	4.99	5.14	0.0332	0.65	0.11
SEP 28,82	SEP 27,82	218.0	24.3	4.22	4.23	0.0706	1.55	0.77
OCT 2,82	OCT 1,82	291.0	92.0	4.21	3.64	0.3196	8.35	1.24
OCT 8,82	OCT 7,82	2253.0	38.8	4.03	4.01	0.1104	4.05	0.30
OCT 13,82	OCT 12,82	U 23.0	*****	*****	3.42	0.3560	12.60	> 2.00
OCT 14,82	OCT 13,82	512.0	29.0	4.27	4.10	0.1014	1.90	0.67
OCT 15,82	OCT 14,82	32.0	*****	*****	4.54	0.0496	0.80	0.40
OCT 17,82	OCT 16,82	120.0	*****	*****	4.55	0.0478	1.10	< 0.02
OCT 21,82	OCT 20,82	328.0	28.7	4.28	4.19	0.0852	2.95	0.54
NOV 1,82	OCT 31,82	200.0	54.0	3.87	3.91	0.1402	4.30	0.84
NOV 2,82	NOV 1,82	*****	*****	*****	*****	*****	*****	*****
NOV 3,82	NOV 2,82	< 175.0	*****	*****	4.02	0.1040	3.35	0.68
NOV 4,82	NOV 3,82	1955.0	16.3	*****	4.35	0.0624	1.25	0.19
NOV 5,82	NOV 4,82	985.0	*****	*****	4.88	0.0292	0.45	0.07
NOV 6,82	NOV 5,82	265.0	19.0	*****	4.37	0.0646	1.20	0.48
NOV 12,82	NOV 11,82	94.0	*****	*****	3.82	0.1516	4.00	0.98
NOV 13,82	NOV 12,82	726.0	16.5	4.55	4.32	0.0722	1.60	0.26
NOV 21,82	NOV 20,82	191.0	*****	4.10	3.99	0.1082	3.85	0.47
NOV 22,82	NOV 21,82	90.0	*****	*****	4.00	0.1084	3.10	0.40
NOV 23,82	NOV 22,82	U 9.0	*****	*****	*****	*****	*****	*****
NOV 24,82	NOV 23,82	863.0	37.0	4.19	4.10	0.1110	3.05	0.64
NOV 27,82	NOV 26,82	186.0	*****	4.17	4.09	0.1160	2.95	0.74
NOV 29,82	NOV 28,82	483.0	33.5	4.23	4.10	0.1024	2.15	0.55
NOV 30,82	NOV 29,82	192.0	*****	4.24	4.11	0.0906	2.20	0.44
DEC 1,82	NOV 30,82	19.0	*****	*****	3.54	0.2880	*****	*****
DEC 3,82	DEC 2,82	220.0	*****	*****	4.05	0.1112	2.80	0.47
DEC 4,82	DEC 3,82	230.0	*****	4.10	4.07	0.0918	1.95	0.57
DEC 5,82	DEC 4,82	69.0	*****	*****	4.33	0.0602	1.70	0.18
DEC 6,82	DEC 5,82	298.0	15.0	4.52	4.49	0.0518	1.35	0.22
DEC 7,82	DEC 6,82	29.0	*****	*****	4.05	0.1022	3.45	0.78
DEC 16,82	DEC 15,82	879.0	23.3	4.05	4.34	0.0758	1.40	0.43
DEC 17,82	DEC 16,82	354.0	*****	4.18	4.07	0.0964	2.55	0.69
DEC 25,82	DEC 24,82	385.0	43.0	4.08	4.02	0.1228	3.45	0.60

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHM #11

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 2,82	SEP 1,82	0.05	0.08	0.020	0.050	0.020	0.302	0.0891
SEP 7,82	SEP 6,82	0.11	0.11	0.020	0.020	0.020	0.490	0.1122
SEP 15,82	SEP 14,82	0.28	0.37	0.040	0.035	0.050	0.690	0.3090
SEP 19,82	SEP 18,82	0.05	0.08	<W 0.005	<W 0.005	0.010	0.930	0.0646
SEP 21,82	SEP 20,82	0.71	0.40	0.125	0.080	0.070	0.860	0.2291
SEP 23,82	SEP 22,82	0.06	0.08	0.010	0.020	0.025	*****	0.0501
SEP 24,82	SEP 23,82	*****	0.16	*****	*****	*****	0.800	0.0794
SEP 26,82	SEP 26,82	<T 0.01	0.12	0.005	<W 0.005	0.015	0.234	0.0072
SEP 28,82	SEP 27,82	0.04	0.08	0.005	<W 0.005	<T 0.010	0.530	0.0589
OCT 2,82	OCT 1,82	0.50	0.32	0.070	0.105	0.110	0.860	0.2291
OCT 8,82	OCT 7,82	0.05	0.11	0.010	0.030	0.030	0.410	0.0977
OCT 13,82	OCT 12,82	*****	*****	*****	*****	*****	*****	0.3802
OCT 14,82	OCT 13,82	0.03	0.11	0.025	0.075	0.100	0.248	0.0794
OCT 15,82	OCT 14,82	*****	*****	*****	*****	*****	*****	0.0288
OCT 17,82	OCT 16,82	0.03	0.04	0.020	0.020	0.020	0.040	0.0282
OCT 21,82	OCT 20,82	0.40	0.49	0.085	0.035	0.280	0.348	0.0646
NOV 1,82	OCT 31,82	0.20	0.11	0.045	0.070	0.045	0.400	0.1230
NOV 2,82	NOV 1,82	*****	*****	*****	*****	*****	*****	*****
NOV 3,82	NOV 2,82	0.26	0.12	0.040	0.035	0.105	0.358	0.0955
NOV 4,82	NOV 3,82	0.02	<W 0.01	<W 0.005	0.010	0.020	0.082	0.0447
NOV 5,82	NOV 4,82	*****	<W 0.01	*****	*****	*****	0.008	0.0132
NOV 6,82	NOV 5,82	0.15	0.07	0.015	0.020	0.020	0.270	0.0427
NOV 12,82	NOV 11,82	0.18	0.21	0.035	0.045	0.105	0.442	0.1514
NOV 13,82	NOV 12,82	0.08	0.14	0.010	0.010	0.075	0.240	0.0479
NOV 21,82	NOV 20,82	0.08	0.09	0.020	0.030	0.170	0.232	0.1023
NOV 22,82	NOV 21,82	*****	0.43	*****	*****	*****	0.450	0.1000
NOV 23,82	NOV 22,82	*****	*****	*****	*****	*****	*****	*****
NOV 24,82	NOV 23,82	0.15	0.11	0.005	<T 0.005	0.030	0.354	0.0794
NOV 27,82	NOV 26,82	0.31	0.35	0.035	<W 0.005	0.040	0.420	0.0813
NOV 29,82	NOV 28,82	0.05	0.10	0.005	0.015	0.010	0.120	0.0794
NOV 30,82	NOV 29,82	0.04	0.10	0.010	<W 0.005	<T 0.005	0.146	0.0776
DEC 1,82	NOV 30,82	*****	*****	*****	*****	*****	*****	0.2884
DEC 3,82	DEC 2,82	0.08	0.29	0.020	<T 0.010	0.140	0.082	0.0891
4,82	DEC 3,82	0.07	0.20	0.015	0.015	0.040	0.182	0.0851
5,82	DEC 4,82	0.11	0.10	0.015	<T 0.010	0.030	*****	0.0468
6,82	DEC 5,82	0.04	0.18	0.015	<T 0.010	0.140	*****	0.0324
15,82	0.02	0.06	0.010	0.010	0.020	0.160	0.0457	0.0891
18,82	0.14	0.15	0.030	0.025	0.035	0.310	0.0851	0.0955
		0.13	0.37	0.035	0.030	0.160	0.232	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END	PRECIP HR. HR.	SAMPLE START/END HR. HR.	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN	02-SNOW
DEC 26,82	DEC 25,82	1000 1000	1000 1400	1	6.3	2	23359	2	1	119		
DEC 28,82	DEC 27,82	1000 900	1800 1000	1	2.6	2	23360	2	1	75		
DEC 29,82	DEC 28,82	1000 900	1000 2200	1	2.8	2	23361	2	1	149	N	

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. U4HO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
DEC 26.82	DEC 25.82	483.0	16.3	4.54	4.53	0.0562	1.55	0.19
DEC 28.82	DEC 27.82	125.0	*****	*****	4.15	0.1000	2.10	0.76
DEC 29.82	DEC 28.82	268.0	19.2	4.43	4.45	0.0618	1.90	0.29

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHM #11

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
DEC 26+82	DEC 25+82	0.10	0.11	0.015	0.020	0.080	0.158	0.0295
DEC 28+82	DEC 27+82	0.14	0.09	0.020	0.025	0.055	0.268	0.0708
DEC 29+82	DEC 28+82	0.21	0.22	0.045	0.020	0.090	0.230	0.0355

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES 04-ON HYDRO	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
JAN 4.82	JAN 3.82	800 800	300 800	3	13.7	2	23741	2	1	96		
JAN 5.82	JAN 4.82	800 800	800 1800	1	13.9	2	23744	2	1	****	HG	
JAN 9.82	JAN 8.82	800 800	1600 2300	2	3.3	2	23747	2	1	7		N
JAN 11.82	JAN 10.82	800 800	300 730	2	6.5	2	23750	2	1	13		N
JAN 14.82	JAN 13.82	800 800	1500 2100	2	2.1	2	23753	2	1	22		N
JAN 17.82	JAN 16.82	800 800	1000 2000	2	2.1	2	23755	2	1	34		N
JAN 24.82	JAN 23.82	800 800	830 1830	2	17.3	2	23758	2	1	55		J
JAN 29.82	JAN 28.82	800 800	1100 1830	2	0.5	2	23759	2	1	48		N
JAN 31.82	JAN 30.82	800 800	**** ****	2	11.7	2	23762	2	1	41		N
FEB 1.82	JAN 31.82	800 800	1400 600	2	23.1	2	23765	2	1	43		N
FEB 4.82	FEB 3.82	800 800	1530 2200	3	9.3	2	23768	2	1	73		
FEB 8.82	FEB 5.82	800 800	**** ****	2	5.3	2	23771	2	1	37		NZ
FEB 10.82	FEB 9.82	800 800	**** ****	2	1.5	2	23774	2	1	90		
FEB 19.82	FEB 18.82	800 800	200 800	2	5.7	2	23776	2	1	62		
MAR 2.82	MAR 1.82	800 800	**** ****	2	0.5	2	23779	2	1	41		N
MAR 5.82	MAR 4.82	800 800	1600 2400	3	12.1	2	23782	2	1	76		
MAR 9.82	MAR 5.82	800 800	**** ****	2	2.1	2	23785	2	1	65		Z
MAR 10.82	MAR 9.82	800 800	800 1400	2	2.9	2	23788	2	1	****	GH	N
MAR 11.82	MAR 10.82	800 800	2200 2400	2	0.6	2	23791	2	1	129		N
MAR 14.82	MAR 13.82	800 800	**** ****	1	10.2	2	23794	2	1	****	G	
MAR 17.82	MAR 16.82	800 800	1900 800	1	13.9	2	23797	2	1	74		
MAR 18.82	MAR 17.82	800 800	800 1000	2	1.3	2	23800	2	1	96		
MAR 19.82	MAR 18.82	800 800	1700 2100	2	2.7	2	23803	2	1	115		
MAR 22.82	MAR 21.82	800 800	**** ****	2	11.3	2	23806	2	1	****	GH	
MAR 26.82	MAR 25.82	800 800	1800 800	1	19.3	2	23818	2	1	103		CD
MAR 31.82	MAR 30.82	800 800	**** ****	1	4.3	2	23809	2	1	118		
APR 1.82	MAR 31.82	800 800	1700 2000	1	****	*	23812	2	1	****		
APR 5.82	APR 3.82	800 800	**** ****	3	25.1	2	23815	2	1	89		HZ
APR 12.82	APR 10.82	800 800	**** ****	3	4.3	2	23821	2	1	63		Z
APR 13.82	APR 12.82	800 800	400 800	1	0.5	2	23824	2	1	234		N
APR 14.82	APR 13.82	800 800	800 1400	1	4.1	2	23827	2	1	****	GE	
APR 21.82	APR 20.82	800 800	830 2400	1	17.1	2	23832	2	1	104		

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 4,82	JAN 3,82	2166.0	13.0	4.56	4.53	0.0624	1.05	0.19
JAN 5,82	JAN 4,82	1887.0	23.4	4.25	4.24	0.0850	1.80	0.30
JAN 9,82	JAN 8,82	U 38.0	*****	*****	4.55	*****	0.95	0.61
JAN 11,82	JAN 10,82	U 143.0	*****	*****	U 6.45	*****	1.50	0.55
JAN 14,82	JAN 13,82	U 78.0	*****	*****	4.39	*****	0.90	0.45
JAN 17,82	JAN 16,82	U 118.0	*****	*****	3.99	*****	5.15	1.30
JAN 24,82	JAN 23,82	1581.0	12.8	4.80	4.64	0.0594	1.10	0.24
JAN 29,82	JAN 28,82	U 40.0	*****	*****	U 3.75	*****	10.00	U 2.00
JAN 31,82	JAN 30,82	U 800.0	19.5	4.38	4.32	0.0760	0.90	0.38
FEB 1,82	JAN 31,82	U 1647.0	23.3	4.28	4.24	0.0838	1.10	0.44
FEB 4,82	FEB 3,82	1125.0	23.5	4.29	4.29	0.0834	1.50	0.36
FEB 8,82	FEB 5,82	U 323.0	50.1	*****	3.91	0.1420	1.90	1.32
FEB 10,82	FEB 9,82	223.0	39.8	*****	4.00	*****	0.90	1.25
FEB 19,82	FEB 18,82	585.0	33.5	*****	4.27	0.0870	2.90	1.10
MAR 2,82	MAR 1,82	U 34.0	*****	*****	U 4.29	*****	50.40	U 15.70
MAR 5,82	MAR 4,82	1513.0	58.0	*****	3.92	0.1636	3.95	1.21
MAR 9,82	MAR 5,82	227.0	54.0	*****	3.98	*****	3.20	1.40
MAR 10,82	MAR 9,82	U 214.0	49.0	*****	3.96	*****	1.95	1.14
MAR 11,82	MAR 10,82	127.0	155.0	*****	3.46	*****	8.15	3.80
MAR 14,82	MAR 13,82	1966.0	63.0	*****	3.89	*****	5.60	0.78
MAR 17,82	MAR 16,82	1690.0	17.4	*****	4.50	0.0750	1.20	0.48
MAR 18,82	MAR 17,82	206.0	20.7	*****	4.30	*****	1.30	0.34
MAR 19,82	MAR 18,82	511.0	99.8	*****	3.65	0.2910	5.90	1.73
MAR 22,82	MAR 21,82	1595.0	70.2	*****	3.89	0.1870	5.50	1.25
MAR 26,82	MAR 25,82	3285.0	86.0	*****	3.87	0.1894	7.25	1.98
MAR 31,82	MAR 30,82	836.0	37.5	*****	4.51	0.0670	5.65	0.93
APR 1,82	MAR 31,82	927.0	19.1	*****	4.75	0.0458	2.50	0.57
APR 5,82	APR 3,82	3670.0	11.4	*****	4.94	0.0352	1.30	0.10
APR 12,82	APR 10,82	451.0	70.8	*****	3.95	0.1628	6.20	1.32
APR 13,82	APR 12,82	192.0	U 110.0	*****	3.88	0.2102	> 10.00	> 2.00
APR 14,82	APR 13,82	*****	*****	*****	*****	*****	*****	*****
APR 21,82	APR 20,82	2922.0	41.3	*****	4.18	0.1076	4.00	0.79

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/SES

#10

PAGE : 3

REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 4,82	JAN 3,82	0.08	0.07	0.010	<T 0.010	0.030	0.146	0.0295
JAN 5,82	JAN 4,82	0.12	0.14	0.015	0.010	0.040	0.154	0.0575
JAN 9,82	JAN 8,82	*****	0.34	*****	*****	*****	*****	0.0282
JAN 11,82	JAN 10,82	*****	U 1.24	*****	*****	*****	<T 0.002	U 0.0004
JAN 14,82	JAN 13,82	*****	0.58	*****	*****	*****	0.080	0.0407
JAN 17,82	JAN 16,82	0.72	0.84	0.095	0.070	0.610	0.680	0.1023
JAN 24,82	JAN 23,82	0.18	0.10	0.030	0.020	0.070	0.120	0.0229
JAN 29,82	JAN 28,82	*****	U 1.50	*****	*****	*****	*****	U 0.1778
JAN 31,82	JAN 30,82	0.12	0.24	0.010	0.010	0.120	0.082	0.0479
FEB 1,82	JAN 31,82	0.07	0.07	<T 0.005	0.010	0.020	0.048	0.0575
FEB 4,82	FEB 3,82	0.07	0.10	<T 0.005	0.020	0.080	0.146	0.0513
FEB 8,82	FEB 5,82	0.42	0.53	0.030	0.050	0.330	0.194	0.1230
FEB 10,82	FEB 9,82	0.41	0.55	0.065	0.015	U 0.260	0.026	0.1000
FEB 19,82	FEB 18,82	1.23	0.39	0.130	0.040	0.440	0.420	0.0537
MAR 2,82	MAR 1,82	*****	U 11.90	*****	*****	*****	*****	U 0.0513
MAR 5,82	MAR 4,82	0.47	0.31	0.040	0.045	0.115	0.470	0.1202
MAR 9,82	MAR 5,82	0.89	0.53	0.095	0.400	0.320	0.330	0.1047
MAR 10,82	MAR 9,82	0.16	0.36	U 0.200	0.015	0.080	0.292	0.1096
MAR 11,82	MAR 10,82	0.75	0.86	0.110	0.080	0.440	1.160	0.3467
MAR 14,82	MAR 13,82	0.23	0.39	0.055	0.040	0.240	0.450	0.1288
MAR 17,82	MAR 16,82	0.50	0.05	0.045	0.015	0.040	0.158	0.0316
MAR 18,82	MAR 17,82	0.19	0.06	0.020	0.020	0.040	0.074	0.0501
MAR 19,82	MAR 18,82	0.41	0.26	0.040	0.035	0.035	0.268	0.2239
MAR 22,82	MAR 21,82	0.42	0.14	0.055	0.040	0.045	0.720	0.1318
MAR 26,82	MAR 25,82	0.52	0.36	0.070	0.045	0.100	1.740	0.1349
MAR 31,82	MAR 30,82	U 2.09	0.57	U 0.220	0.045	0.345	0.332	0.0309
APR 1,82	MAR 31,82	0.75	0.16	0.080	0.030	0.040	0.510	0.0178
APR 5,82	APR 3,82	0.52	0.05	0.035	0.030	0.025	0.122	0.0115
APR 12,82	APR 10,82	0.51	0.24	0.060	0.045	0.055	0.830	0.1122
APR 13,82	APR 12,82	U 2.95	0.80	U 0.335	0.210	0.230	U 1.510	0.1318
APR 14,82	APR 13,82	*****	*****	*****	*****	*****	*****	*****
APR 21,82	APR 20,82	0.54	0.22	0.075	0.045	0.050	0.450	0.0661

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(4M)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD	OFFICE
MAY 3,82	MAY 2,82	800 800	1400 1600	1 2.3	1	23828	2	1	88			
MAY 8,82	MAY 7,82	800 800	**** ****	1 11.6	1	23834	2	1	103	A		
MAY 9,82	MAY 8,82	800 800	800 1700	1 ****	1 *	23836	2	1	****			
MAY 20,82	MAY 19,82	800 800	1100 2000	1 3.8	1	23845	2	1	88			
MAY 21,82	MAY 20,82	800 800	**** ****	1 4.2	1	23846	2	1	102		T	
MAY 23,82	MAY 22,82	800 800	**** ****	1 1.8	1	23847	2	1	62		T	
MAY 24,82	MAY 23,82	800 800	1100 700	1 16.2	1	23848	2	1	99			
MAY 29,82	MAY 28,82	800 800	900 2000	1 48.0	1	23849	2	1	102	A		
MAY 31,82	MAY 30,82	800 800	2000 2400	1 4.0	1	23850	2	1	94			
JUN 1,82	MAY 31,82	800 800	900 1200	1 16.4	1	23851	2	1	100			
JUN 2,82	JUN 1,82	800 800	1400 1800	1 21.8	1	23844	2	1	101			
JUN 7,82	JUN 5,82	800 800	**** ****	1 25.6	1	23859	2	1	****	BG	T	
JUN 11,82	JUN 10,82	800 800	2300 200	1 2.4	1	23860	2	1	121		Z	
JUN 14,82	JUN 13,82	800 800	2000 200	1 3.2	1	23861	2	1	118		NT	
JUN 16,82	JUN 15,82	800 800	1600 2400	1 8.2	1	23862	2	1	108		T	
JUN 22,82	JUN 21,82	800 800	**** ****	1 22.4	1	23863	2	1	106			
JUN 23,82	JUN 22,82	800 800	1710 1730	1 3.6	1	23864	2	1	123		N	
JUN 24,82	JUN 23,82	800 800	1400 2100	1 7.0	1	23865	2	1	105		JC	
JUL 19,82	JUL 18,82	800 800	2300 100	1 2.0	1	23866	2	1	105			
JUL 28,82	JUL 27,82	800 800	330 800	1 8.2	1	23867	2	1	69			
JUL 29,82	JUL 28,82	800 800	**** ****	1 7.2	1	23868	2	1	91			
JUL 31,82	JUL 30,82	800 800	2100 300	1 13.8	1	23869	2	1	103		JH	
AUG 3,82	AUG 2,82	800 800	1300 1630	1 3.0	1	23870	2	1	94			
AUG 20,82	AUG 19,82	800 800	2000 100	1 16.4	1	23871	2	1	101			
AUG 23,82	AUG 22,82	800 800	1730 300	1 10.6	1	23872	2	1	68			
AUG 25,82	AUG 24,82	800 800	300 800	1 11.0	1	23873	2	1	101			
AUG 26,82	AUG 25,82	800 800	800 1300	1 30.6	1	23874	2	1	89			
AUG 28,82	AUG 27,82	800 800	**** ****	1 5.4	1	23875	2	1	97			
AUG 29,82	AUG 28,82	800 800	1100 1500	1 4.2	1	23876	2	1	87		HM	
SEP 2,82	SEP 1,82	800 800	2300 200	1 15.6	1	23877	2	1	98			
SEP 15,82	SEP 14,82	800 800	1600 2100	1 5.2	1	23878	2	1	89		M	
SEP 18,82	SEP 17,82	800 800	200 730	1 14.9	1	23879	2	1	48			
SEP 21,82	SEP 20,82	800 800	2130 2300	1 10.8	1	23880	2	1	98		N	
SEP 23,82	SEP 22,82	800 800	400 600	1 4.3	1	23881	2	1	83		HM	
SEP 27,82	SEP 26,82	800 800	200 800	1 24.6	1	23882	2	1	98			
SEP 28,82	SEP 27,82	800 800	800 2000	1 7.0	1	23883	2	1	87			
OCT 8,82	OCT 7,82	800 800	2000 2400	1 26.0	1	23886	2	1	****	G		
OCT 9,82	OCT 8,82	800 800	100 200	1 2.0	1	23885	2	1	88			
OCT 12,82	OCT 11,82	800 800	1030 1600	1 4.1	1	23884	2	1	171		N	
OCT 14,82	OCT 13,82	800 800	2200 2300	1 2.1	1	23887	2	1	****	G	T	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HAMILTON/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE LAB MG/L
JAN 4,82	JAN 3,82	0.08	0.07	0.010	<T 0.010	0.030	0.146	0.0295
JAN 5,82	JAN 4,82	0.12	0.14	0.015	0.010	0.040	0.154	0.0575
JAN 9,82	JAN 8,82	*****	0.34	*****	*****	*****	*****	0.0282
JAN 11,82	JAN 10,82	*****	U 1.24	*****	*****	*****	<T 0.002	U 0.0004
JAN 14,82	JAN 13,82	*****	0.58	*****	*****	*****	0.080	0.0407
JAN 17,82	JAN 16,82	0.72	0.84	0.095	0.070	0.610	0.680	0.1023
JAN 24,82	JAN 23,82	0.18	0.10	0.030	0.020	0.070	0.120	0.0229
JAN 29,82	JAN 28,82	*****	U 1.50	*****	*****	*****	*****	U 0.1778
JAN 31,82	JAN 30,82	0.12	0.24	0.010	0.010	0.120	0.082	0.0479
FEB 1,82	JAN 31,82	0.07	0.07	<T 0.005	0.010	0.020	0.048	0.0575
FEB 4,82	FEB 3,82	0.07	0.10	<T 0.005	0.020	0.080	0.146	0.0513
FEB 8,82	FEB 5,82	0.42	0.53	0.030	0.050	0.330	0.194	0.1230
FEB 10,82	FEB 9,82	0.41	0.55	0.065	0.015	U 0.260	0.026	0.1000
FEB 19,82	FEB 18,82	1.23	0.39	0.130	0.040	0.440	0.420	0.0537
MAR 2,82	MAR 1,82	*****	U 11.90	*****	*****	*****	*****	U 0.0513
MAR 5,82	MAR 4,82	0.47	0.31	0.040	0.045	0.115	0.470	0.1202
MAR 9,82	MAR 5,82	0.89	0.53	0.095	0.400	0.320	0.330	0.1047
MAR 10,82	MAR 9,82	0.16	0.36	U 0.200	0.015	0.080	0.292	0.1096
MAR 11,82	MAR 10,82	0.75	0.86	0.110	0.080	0.440	1.160	0.3467
MAR 14,82	MAR 13,82	0.23	0.39	0.055	0.040	0.240	0.460	0.1288
MAR 17,82	MAR 16,82	0.50	0.05	0.045	0.015	0.040	0.158	0.0316
MAR 18,82	MAR 17,82	0.19	0.06	0.020	0.020	0.040	0.074	0.0501
MAR 19,82	MAR 18,82	0.41	0.26	0.040	0.035	0.035	0.268	0.2239
MAR 22,82	MAR 21,82	0.42	0.14	0.055	0.040	0.045	0.720	0.1318
MAR 26,82	MAR 25,82	0.52	0.36	0.070	0.045	0.100	1.740	0.1349
MAR 31,82	MAR 30,82	U 2.09	0.57	U 0.220	0.045	0.345	0.332	0.0309
APR 1,82	MAR 31,82	0.75	0.16	0.080	0.030	0.040	0.510	0.0178
APR 5,82	APR 3,82	0.52	0.05	0.035	0.030	0.025	0.122	0.0115
APR 12,82	APR 10,82	0.51	0.24	0.060	0.045	0.055	0.830	0.1122
APR 13,82	APR 12,82	U 2.95	0.80	U 0.335	0.210	0.230	U 1.510	0.1318
APR 14,82	APR 13,82	*****	*****	*****	*****	*****	*****	*****
APR 21,82	APR 20,82	0.54	0.22	0.075	0.045	0.050	0.450	0.0661

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 4,82	JAN 3,82	2166.0	13.0	4.56	4.53	0.0624	1.05	0.19
JAN 5,82	JAN 4,82	1887.0	23.4	4.25	4.24	0.0850	1.80	0.30
JAN 9,82	JAN 8,82	U 38.0	*****	*****	4.55	*****	0.95	0.61
JAN 11,82	JAN 10,82	U 143.0	*****	*****	U 6.45	*****	1.50	0.55
JAN 14,82	JAN 13,82	U 78.0	*****	*****	4.39	*****	0.90	0.45
JAN 17,82	JAN 16,82	U 118.0	*****	*****	3.99	*****	5.15	1.30
JAN 24,82	JAN 23,82	1581.0	12.8	4.80	4.64	0.0594	1.10	0.24
JAN 29,82	JAN 28,82	U 40.0	*****	*****	U 3.75	*****	U 10.00	U 2.00
JAN 31,82	JAN 30,82	U 800.0	19.5	4.38	4.32	0.0760	0.90	0.39
FEB 1,82	JAN 31,82	U 1647.0	23.3	4.28	4.24	0.0838	1.10	0.44
FEB 4,82	FER 3,82	1125.0	23.5	4.29	4.29	0.0834	1.50	0.36
FEB 8,82	FER 5,82	U 323.0	50.1	*****	3.91	0.1420	1.90	1.32
FEB 10,82	FER 9,82	223.0	39.8	*****	4.00	*****	0.90	1.25
FEB 19,82	FER 18,82	585.0	33.5	*****	4.27	0.0870	2.90	1.10
MAR 2,82	MAR 1,82	U 34.0	*****	*****	U 4.29	*****	U 50.40	U 15.70
MAR 5,82	MAR 4,82	1513.0	58.0	*****	3.92	0.1636	3.95	1.21
MAR 9,82	MAR 5,82	227.0	54.0	*****	3.98	*****	3.20	1.40
MAR 10,82	MAR 9,82	U 214.0	49.0	*****	3.96	*****	1.95	1.14
MAR 11,82	MAR 10,82	127.0	155.0	*****	3.46	*****	8.15	3.80
MAR 14,82	MAR 13,82	1966.0	63.0	*****	3.89	*****	5.60	0.78
MAR 17,82	MAR 16,82	1690.0	17.4	*****	4.50	0.0750	1.20	0.48
MAR 18,82	MAR 17,82	206.0	20.7	*****	4.30	*****	1.30	0.34
MAR 19,82	MAR 18,82	511.0	99.8	*****	3.65	0.2910	5.90	1.73
MAR 22,82	MAR 21,82	1595.0	70.2	*****	3.88	0.1870	5.50	1.25
MAR 26,82	MAR 25,82	3285.0	86.0	*****	3.87	0.1894	7.25	1.98
MAR 31,82	MAR 30,82	836.0	37.5	*****	4.51	0.0670	5.65	0.93
APR 1,82	MAR 31,82	927.0	19.1	*****	4.75	0.0458	2.50	0.57
APR 5,82	APR 3,82	3670.0	11.4	*****	4.94	0.0352	1.30	0.10
APR 12,82	APR 10,82	451.0	70.8	*****	3.95	0.1628	6.20	1.32
APR 13,82	APR 12,82	192.0	U 110.0	*****	3.88	0.2102	> 10.00	> 2.00
APR 14,82	APR 13,82	*****	*****	*****	*****	*****	*****	*****
APR 21,82	APR 20,82	2922.0	41.3	*****	4.18	0.1076	4.00	0.79

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER	COMMENTS	
		START/END HR. HR.	START/END HR. HR.	01-RAIN	02-SNOW								01-STD.	02-NIPHER
OCT 15,82	OCT 14,82	800	800	1900	2200	1	3.2	1	23888	2	1	75		
NOV 2,82	NOV 1,82	800	800	1600	700	1	17.2	1	23889	2	1	93		
NOV 3,82	NOV 2,82	800	800	****	****	1	****	*	23890	2	1	****		
NOV 4,82	NOV 3,82	800	800	1400	800	1	****	*	23891	2	1	****		
NOV 5,82	NOV 4,82	800	800	2400		1	****	*	23892	2	1	****		
NOV 13,82	NOV 11,82	800	800	****	****	1	18.5	2	23893	2	1	88	Z	
NOV 15,82	NOV 14,82	800	800	2300	200	2	****	*	23894	2	1	****		
NOV 20,82	NOV 19,82	800	800	1800	200	1	4.9	2	23896	2	1	54		
NOV 22,82	NOV 21,82	800	800	1100	1800	1	6.1	2	23898	2	1	71	M	
NOV 24,82	NOV 23,82	800	800	1100	430	1	13.1	2	23900	2	1	95		
NOV 28,82	NOV 26,82	800	800	****	****	3	10.1	2	23901	2	1	74	JHZ	
NOV 30,82	NOV 29,82	800	800	800	1200	1	5.6	2	23903	2	1	80		
DEC 1,82	NOV 30,82	800	800	800	1000	1	0.9	2	23904	2	1	91	T	
DEC 3,82	DEC 2,82	800	800	2000	2400	1	4.5	2	23906	2	1	97		
DEC 5,82	DEC 4,82	800	800	200	500	1	8.5	2	23908	2	1	88		
DEC 6,82	DEC 5,82	800	800	1900	400	1	5.2	2	23910	2	1	101	C H	
DEC 9,82	DEC 8,82	800	800	1900	100	2	3.3	2	23913	2	1	5	E N	
DEC 10,82	DEC 9,82	800	800	200	400	2	1.1	2	23915	2	1	****	E	
DEC 16,82	DEC 15,82	800	800	1600	800	1	19.7	2	23916	2	1	101	J	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
OCT 15,82	OCT 14,82	155.0	*****	4.75	4.63	0.0454	1.15	0.35
NOV 2,82	NOV 1,82	1030.0	29.5	4.19	4.09	0.0916	2.60	0.45
NOV 3,82	NOV 2,82	101.0	*****	*****	4.29	0.0670	2.40	0.34
NOV 4,82	NOV 3,82	1254.0	18.0	4.27	4.36	0.0628	1.25	0.23
NOV 5,82	NOV 4,82	1105.0	8.7	4.70	4.72	0.0400	0.60	0.14
NOV 13,82	NOV 11,82	1054.0	26.9	4.34	4.14	0.0940	2.45	0.42
NOV 15,82	NOV 14,82	*****	*****	*****	3.62	0.3116	*****	*****
NOV 20,82	NOV 19,82	170.0	*****	4.04	3.94	0.1336	3.55	0.31
NOV 22,82	NOV 21,82	278.0	*****	4.24	4.12	0.0864	3.30	0.75
NOV 24,82	NOV 23,82	806.0	*****	4.06	3.98	0.1182	2.85	0.58
NOV 28,82	NOV 26,82	481.0	15.0	4.63	5.07	0.0496	2.35	0.52
NOV 30,82	NOV 29,82	290.0	28.0	4.29	4.11	0.1020	2.20	0.41
DEC 1,82	NOV 30,82	53.0	*****	*****	3.72	0.1828	3.90	1.68
DEC 3,82	DEC 2,82	281.0	30.5	4.12	4.10	0.0876	2.60	0.39
DEC 5,82	DEC 4,82	480.0	40.5	3.97	3.98	0.1110	3.10	0.69
DEC 6,82	DEC 5,82	340.0	11.7	4.65	4.68	0.0358	1.35	0.19
DEC 9,82	DEC 8,82	U 12.0	*****	*****	*****	*****	*****	*****
DEC 10,82	DEC 9,82	*****	*****	*****	*****	*****	*****	*****
DEC 16,82	DEC 15,82	1282.0	27.0	4.45	4.18	0.0872	1.75	0.52

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
OCT 15.82	OCT 14.82	0.17	0.09	0.030	0.035	0.020	0.306	0.0234
NOV 2.82	NOV 1.82	0.13	0.06	0.020	0.050	0.030	0.238	0.0813
NOV 3.82	NOV 2.82	*****	0.09	*****	*****	*****	0.318	0.0513
NOV 4.82	NOV 3.82	0.02	0.05	<W 0.005	0.015	0.040	0.090	0.0437
NOV 5.82	NOV 4.82	0.05	0.06	<W 0.005	0.010	0.015	0.134	0.0191
NOV 13.82	NOV 11.82	0.09	0.15	0.015	0.020	0.080	0.352	0.0724
NOV 15.82	NOV 14.82	*****	*****	*****	*****	*****	*****	0.2399
NOV 20.82	NOV 19.82	0.21	*****	0.055	0.050	0.325	0.460	0.1148
NOV 22.82	NOV 21.82	0.05	0.09	0.010	0.020	0.050	0.282	0.0759
NOV 24.82	NOV 23.82	0.03	0.10	<W 0.005	0.010	0.030	0.332	0.1047
NOV 28.82	NOV 26.82	U 1.40	0.23	0.005	0.055	0.185	0.192	0.0085
NOV 30.82	NOV 29.82	0.04	0.10	<W 0.005	<W 0.005	0.020	0.122	0.0776
DEC 1.82	NOV 30.82	*****	0.39	*****	*****	*****	*****	0.1905
DEC 3.82	DEC 2.82	0.21	0.25	0.025	<T 0.010	0.105	0.112	0.0794
DEC 5.82	DEC 4.82	0.15	0.29	0.035	0.020	0.135	0.308	0.1047
DEC 6.82	DEC 5.82	0.29	0.19	0.105	0.015	0.120	0.154	0.0209
DEC 9.82	DEC 8.82	*****	*****	*****	*****	*****	*****	*****
DEC 10.82	DEC 9.82	*****	*****	*****	*****	*****	*****	*****
DEC 16.82	DEC 15.82	0.04	0.07	0.015	0.040	0.065	0.242	0.0661

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/SES

#12

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE	GAUGE	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END HR. HR.	START/END HR. HR.	01-RAIN	02-SNOW	03-COMP/04-ICE	01-STD.			02-NIPHER	02-APIOS	01-MOE	
JAN 4,82	JAN 3,82	800	800	550	615	1	13.9	2	22609	2	1	54	HM
JAN 5,82	JAN 4,82	800	800	****	****	1	22.3	2	22610	2	1	****	GH NJH
JAN 7,82	JAN 6,82	800	800	1640	1645	1	0.3	2	22611	2	1	85	
JAN 9,82	JAN 8,82	800	800	1945	2005	2	3.9	2	22612	2	1	59	
JAN 11,82	JAN 10,82	800	800	650	705	2	10.3	2	22613	2	1	15	NH
JAN 14,82	JAN 13,82	800	800	1420	1500	1	2.7	2	22614	2	1	****	GH N
JAN 17,82	JAN 16,82	800	800	1000	1140	2	2.3	2	22615	2	1	28	
JAN 20,82	JAN 19,82	800	800	2305	2320	2	1.3	2	22616	2	1	61	N
JAN 23,82	JAN 22,82	800	800	540	555	2	2.1	2	22617	2	1	64	H
JAN 24,82	JAN 23,82	800	800	1225	1240	2	12.1	2	22618	2	1	76	
JAN 29,82	JAN 28,82	630	630	1925	1930	3	0.2	2	22619	2	1	3	E N
JAN 31,82	JAN 30,82	800	800	****	****	3	6.7	2	22620	2	1	****	GH H J
FEB 1,82	JAN 31,82	800	800	2040	2050	2	20.1	2	22621	2	1	68	
FEB 2,82	FEB 1,82	700	700	810	815	2	2.7	2	22622	2	1	55	
FEB 3,82	FEB 2,82	700	700	****	****	2	1.1	2	22623	2	1	88	
FEB 4,82	FEB 3,82	700	700	1600	1605	3	13.1	2	22624	2	1	84	
FEB 6,82	FEB 5,82	700	700	1935	2000	2	6.3	2	22630	2	1	38	Q N
FEB 9,82	FEB 8,82	700	700	525	535	2	3.3	2	22625	2	1	71	
FEB 19,82	FEB 18,82	800	800	20	25	2	4.1	2	22626	2	1	64	
FEB 20,82	FEB 19,82	800	800	1505	1510	3	1.7	2	22627	2	1	70	
FEB 28,82	FEB 27,82	800	800	1800	1810	2	1.3	2	22628	2	1	83	
MAR 2,82	MAR 1,82	800	800	1905	1910	2	2.1	2	22629	2	1	45	
MAR 5,82	MAR 4,82	800	800	1430	1440	3	9.5	2	22631	2	1	93	N
MAR 7,82	MAR 6,82	800	800	620	625	2	****	2	22632	2	1	****	Q
MAR 8,82	MAR 7,82	800	800	820	828	2	0.7	2	22633	2	1	60	Q
MAR 10,82	MAR 9,82	800	800	1550	1558	2	4.1	2	22634	2	1	58	Q
MAR 12,82	MAR 11,82	800	800	1605	1615	1	5.7	2	22635	2	1	98	
MAR 14,82	MAR 13,82	800	800	930	940	1	10.7	2	22636	2	1	99	
MAR 17,82	MAR 16,82	800	800	2010	2020	2	8.1	2	22637	2	1	90	
MAR 19,82	MAR 18,82	800	800	55	110	2	7.1	2	22638	2	1	114	
MAR 22,82	MAR 21,82	800	800	1510	1520	3	9.9	2	22639	2	1	96	
MAR 26,82	MAR 25,82	800	800	1900	1915	3	14.2	2	22640	2	1	92	HM
MAR 31,82	MAR 30,82	700	700	510	515	1	4.3	2	22641	2	1	115	H
APR 1,82	MAR 31,82	700	700	1910	1930	1	17.1	2	22642	2	1	84	
APR 4,82	APR 3,82	700	700	1200	1230	3	17.3	2	22643	2	1	110	
APR 5,82	APR 4,82	700	700	1405	1410	2	2.1	2	22644	2	1	27	C N
APR 11,82	APR 10,82	800	800	540	545	2	0.2	2	22645	2	1	****	E
APR 12,82	APR 11,82	700	700	1515	1525	2	1.3	2	22646	2	1	90	C
APR 14,82	APR 13,82	700	700	1610	1615	1	3.7	2	22647	2	1	139	C N
APR 18,82	APR 17,82	700	700	1150	1200	1	4.3	2	23278	2	1	150	A NH

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS.  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/SES

#12

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 4,82	JAN 3,82	1246.0	8.4	U 5.82	U 6.06	0.0558	0.60	0.06
JAN 5,82	JAN 4,82	U 1323.0	U 7.0	4.96	U 5.49	0.0620	0.80	0.11
JAN 7,82	JAN 6,82	42.0	*****	*****	U 4.18	*****	9.90	U 3.77
JAN 9,82	JAN 8,82	382.0	20.9	4.40	4.41	0.0752	0.60	0.68
JAN 11,82	JAN 10,82	U 260.0	9.0	*****	U 6.05	0.0438	0.90	0.28
JAN 14,82	JAN 13,82	U 122.0	*****	*****	U 4.73	*****	U 1.95	0.54
JAN 17,82	JAN 16,82	U 109.0	*****	*****	4.16	*****	3.25	0.94
JAN 20,82	JAN 19,82	131.0	*****	*****	4.06	*****	2.35	1.58
JAN 23,82	JAN 22,82	222.0	13.9	*****	5.17	0.0472	1.20	0.41
JAN 24,82	JAN 23,82	1514.0	15.3	4.43	4.58	0.0612	1.40	0.27
JAN 29,82	JAN 28,82	U 1.0	*****	*****	*****	*****	*****	*****
JAN 31,82	JAN 30,82	632.0	9.4	*****	U 5.97	0.0476	1.00	0.28
FEB 1,82	JAN 31,82	2255.0	16.4	U 3.96	4.38	0.0662	0.85	0.28
FEB 2,82	FEB 1,82	246.0	37.5	*****	4.01	0.1200	1.20	0.97
FEB 3,82	FEB 2,82	159.0	*****	*****	4.08	*****	2.65	1.10
FEB 4,82	FEB 3,82	1824.0	17.1	*****	4.38	0.0676	1.30	0.25
FEB 6,82	FEB 5,82	U 398.0	47.4	*****	3.97	0.1384	1.25	1.29
FEB 9,82	FEB 8,82	389.0	45.0	*****	3.94	0.1372	1.20	1.30
FEB 19,82	FEB 18,82	431.0	28.8	*****	4.56	0.0782	2.90	1.15
FEB 20,82	FEB 19,82	197.0	*****	*****	3.57	*****	9.30	1.79
FEB 28,82	FEB 27,82	177.0	*****	*****	4.24	*****	5.70	1.80
MAR 2,82	MAR 1,82	U 156.0	*****	*****	U 3.97	*****	U 11.10	U 3.72
MAR 5,82	MAR 4,82	1457.0	35.6	*****	U 4.20	0.1118	2.70	0.88
MAR 7,82	MAR 6,82	333.0	39.4	*****	4.12	0.1228	2.05	1.08
MAR 8,82	MAR 7,82	70.0	*****	*****	3.91	*****	1.95	1.26
MAR 10,82	MAR 9,82	395.0	34.5	*****	4.17	0.1168	1.20	1.09
MAR 12,82	MAR 11,82	917.0	67.5	*****	3.82	U 0.1950	4.20	1.40
MAR 14,82	MAR 13,82	1750.0	36.5	*****	4.15	0.1184	3.50	0.46
MAR 17,82	MAR 16,82	1207.0	21.1	*****	4.54	0.0750	2.20	0.49
MAR 19,82	MAR 18,82	1332.0	50.4	*****	4.00	0.1410	3.75	1.06
MAR 22,82	MAR 21,82	1563.0	60.2	*****	4.01	0.1480	6.55	1.09
MAR 26,82	MAR 25,82	2150.0	*****	*****	U 4.99	U 0.0344	U 1.00	U 0.25
MAR 31,82	MAR 30,82	816.0	23.9	*****	4.63	0.0546	2.90	0.79
APR 1,82	MAR 31,82	2372.0	17.9	*****	4.61	0.0482	1.85	0.35
APR 4,82	APR 3,82	3148.0	15.4	*****	4.75	0.0454	1.65	0.19
APR 5,82	APR 4,82	U 93.0	*****	*****	5.99	0.0214	1.20	0.21
APR 11,82	APR 10,82	*****	*****	*****	*****	*****	*****	*****
APR 12,82	APR 11,82	193.0	109.0	*****	3.72	0.2532	9.40	1.85
APR 14,82	APR 13,82	846.0	*****	*****	*****	*****	*****	*****
APR 18,82	APR 17,82	1062.0	31.1	*****	U 5.08	U 0.0546	5.45	0.86

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/SES

#12

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REMOVAL DATE	EXPOSURE DATE	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		FREE H+ LAB MG/L
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
JAN 4,82	JAN 3,82	U 0.26	U 0.54	U 0.065	U 0.230	U 0.370	U 0.320	U 0.0009						
JAN 5,82	JAN 4,82	0.17	0.51	0.025	0.270	0.310	0.170	0.0032						
JAN 7,82	JAN 6,82	*****	U 3.80	*****	*****	*****	*****	*****						
JAN 9,82	JAN 8,82	0.19	0.28	0.010	0.020	0.170	0.172	0.0389						
JAN 11,82	JAN 10,82	U 0.84	0.54	U 0.135	0.060	0.320	0.064	0.0009						
JAN 14,82	JAN 13,82	U 0.61	U 1.08	U 0.140	0.280	U 0.490	0.430	0.0186						
JAN 17,82	JAN 16,82	0.51	0.60	0.075	0.130	0.450	0.450	0.0692						
JAN 20,82	JAN 19,82	0.61	U 1.09	0.085	0.090	U 0.770	U 0.500	0.0871						
JAN 23,82	JAN 22,82	0.24	U 0.76	0.075	0.030	U 0.570	U 0.440	0.0068						
JAN 24,82	JAN 23,82	0.14	0.12	0.025	0.030	0.060	0.216	0.0263						
JAN 29,82	JAN 28,82	*****	*****	*****	*****	*****	*****	*****						
JAN 31,82	JAN 30,82	U 0.89	U 0.46	U 0.175	U 0.090	0.240	0.044	0.0011						
FEB 1,82	JAN 31,82	0.06	0.05	0.005	0.025	0.080	0.036	0.0417						
FEB 2,82	FEB 1,82	0.05	0.20	<T 0.005	0.010	0.095	0.042	0.0977						
FEB 3,82	FEB 2,82	0.27	U 0.63	0.035	0.070	U 0.455	0.510	0.0832						
FEB 4,82	FEB 3,82	0.07	0.07	<T 0.005	0.015	0.035	0.154	0.0417						
FEB 6,82	FEB 5,82	0.14	0.28	0.020	U 0.030	0.125	U 0.118	0.1072						
FEB 9,82	FEB 8,82	0.26	0.51	0.035	0.015	0.255	0.070	0.1148						
FEB 19,82	FEB 18,82	1.05	0.61	U 0.365	0.045	0.705	0.352	0.0275						
FEB 20,82	FEB 19,82	0.10	0.63	0.035	0.040	0.425	0.690	0.2692						
FEB 28,82	FEB 27,82	1.43	0.74	0.285	0.075	0.305	1.610	0.0575						
MAR 2,82	MAR 1,82	U 3.27	U 1.86	*****	*****	U 0.845	*****	U 0.1072						
MAR 5,82	MAR 4,82	0.32	0.19	U 0.120	0.015	0.095	0.620	0.0631						
MAR 7,82	MAR 6,82	0.24	0.26	0.035	0.015	0.170	0.520	0.0759						
MAR 8,82	MAR 7,82	*****	0.41	*****	*****	*****	0.084	0.1230						
MAR 10,82	MAR 9,82	0.14	0.52	0.035	0.015	0.180	0.490	0.0676						
MAR 12,82	MAR 11,82	U 0.30	0.37	0.040	0.055	0.220	0.560	0.1514						
MAR 14,82	MAR 13,82	0.26	0.26	0.045	0.015	0.135	0.410	0.0708						
MAR 17,82	MAR 16,82	0.47	0.16	0.095	0.025	0.085	0.450	0.0288						
MAR 19,82	MAR 18,82	0.17	0.14	0.015	0.020	0.040	0.368	0.1000						
MAR 22,82	MAR 21,82	0.53	0.23	0.045	0.045	0.135	0.940	0.0977						
MAR 26,82	MAR 25,82	0.08	0.34	0.025	0.025	0.135	U 0.0102							
MAR 31,82	MAR 30,82	U 0.95	0.59	U 0.175	0.045	0.300	0.282	0.0234						
APR 1,82	MAR 31,82	0.26	0.15	0.030	0.015	0.050	0.400	0.0245						
APR 4,82	APR 3,82	0.33	0.04	0.035	0.025	0.030	0.096	0.0178						
APR 5,82	APR 4,82	0.71	0.26	0.100	0.030	0.155	*****	0.0010						
APR 11,82	APR 10,82	*****	*****	*****	*****	*****	*****	*****						
APR 12,82	APR 11,82	0.33	0.32	0.045	0.065	0.120	1.210	0.1905						
APR 14,82	APR 13,82	*****	*****	*****	*****	*****	*****	*****						
APR 18,82	APR 17,82	U 1.30	0.46	U 0.305	0.185	0.230	1.290	0.0083						

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

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STATION NAME : GRAHAM LAKE/DAILY/SES #12 PAGE : 4

REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES 04-ON HYDRO	SAMPLER	COMMENTS
APR 21,82	APP 20,82	700 700	2130 2200	1	9.1	2	23279	2	1	116	H

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

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STATION NAME : GRAHAM LAKE/DAILY/SES			#12				PAGE : 5		
REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L	
APR 21,82	APR 20,82	1743.0	30.5	*****	U	5.28	0.0734	5.30	0.97

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/SES #12 PAGE : 6

REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
APR 21,82	APR 20,82	U 0.84	U 0.36	U 0.145	U 0.665	U 0.345	U 1.680	U 0.0052

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END		PRECIP START/END		SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		HR.	HR.	HR.	HR.								
MAY 9,82	MAY 8,82	800	800	1810	1820	1	24.6	1	22648	2	1	97	
MAY 21,82	MAY 20,82	800	700	1500	1515	1	30.2	1	22649	2	1	104	
MAY 24,82	MAY 23,82	800	700	650	700	1	6.2	1	22650	2	1	104	
MAY 29,82	MAY 28,82	700	700	1205	1215	1	16.2	1	22651	2	1	94	
MAY 31,82	MAY 30,82	700	700	2005	2015	1	17.0	1	22652	2	1	87	F
JUN 2,82	JUN 1,82	700	700	1630	1640	1	18.0	1	22653	2	1	90	A
JUN 5,82	JUN 4,82	700	700	1630	1635	1	****	*	22662	2	1	****	I
JUN 7,82	JUN 6,82	700	700	840	850	1	9.3	1	22654	2	1	108	
JUN 11,82	JUN 10,82	700	700	100	105	1	2.0	1	22655	2	1	83	AD
JUN 14,82	JUN 13,82	700	700	1810	1815	1	1.6	1	22656	2	1	****	G
JUN 16,82	JUN 15,82	700	700	2255	2315	1	8.2	1	22657	2	1	110	
JUN 19,82	JUN 18,82	700	700	210	215	1	2.6	1	22658	2	1	108	A
JUN 20,82	JUN 19,82	700	700	1640	1650	1	3.2	1	22659	2	1	68	C
JUN 21,82	JUN 20,82	700	700	630	640	1	11.4	1	22660	2	1	64	ACL
JUN 22,82	JUN 21,82	700	700	2310	2320	1	8.2	1	22661	2	1	89	
JUN 24,82	JUN 23,82	700	700	1140	1143	1	1.0	1	22663	2	1	121	C N
JUN 25,82	JUN 24,82	700	700	1645	1655	1	3.0	1	22664	2	1	35	NJ
JUL 3,82	JUL 2,82	700	700	2115	2120	1	2.8	1	22665	2	1	48	ACD NJ
JUL 12,82	JUL 11,82	700	700	2230	2235	1	3.1	1	22666	2	1	105	CA
JUL 18,82	JUL 17,82	700	700	2005	2015	1	7.8	1	22667	2	1	89	T
JUL 28,82	JUL 27,82	700	700	630	645	1	8.2	1	22668	2	1	81	AH JC
JUL 29,82	JUL 28,82	700	700	1805	1810	1	14.8	1	22669	2	1	45	H NJC
JUL 31,82	JUL 30,82	700	700	2040	2045	1	16.8	1	22670	2	1	100	
AUG 1,82	JUL 31,82	700	700	2205	2210	1	1.6	1	22671	2	1	61	AD
AUG 9,82	AUG 8,82	700	700	2210	2215	1	6.0	1	22672	2	1	99	A J
AUG 21,82	AUG 20,82	700	700	2030	2035	1	6.0	1	22673	2	1	80	
AUG 23,82	AUG 22,82	700	700	2325	2350	1	6.1	1	22674	2	1	96	
AUG 25,82	AUG 24,82	700	700	550	600	1	4.6	1	22675	2	1	103	
AUG 26,82	AUG 25,82	700	700	1040	1050	1	52.0	1	22676	2	1	102	
AUG 28,82	AUG 27,82	700	700	1555	1610	1	12.2	1	22677	2	1	110	
AUG 29,82	AUG 28,82	700	700	1430	1435	1	1.8	1	22678	2	1	59	
AUG 31,82	AUG 30,82	700	700	1900	1910	1	1.8	1	22679	2	1	74	
SEP 2,82	SEP 1,82	700	700	2020	2030	1	16.0	1	22680	2	1	98	
SEP 4,82	SEP 3,82	700	700	2035	2040	1	2.1	1	22681	2	1	76	
SEP 7,82	SEP 6,82	700	700	1540	1545	1	8.0	1	22682	2	1	101	A
SEP 15,82	SEP 14,82	700	700	1510	1520	1	4.2	1	22683	2	1	67	T
SEP 18,82	SEP 17,82	700	700	645	700	1	10.0	1	22684	2	1	104	
SEP 21,82	SEP 20,82	700	700	305	315	1	3.0	1	22685	2	1	74	
SEP 23,82	SEP 22,82	700	700	630	640	1	2.0	1	22686	2	1	119	H
SEP 24,82	SEP 23,82	700	700	815	820	1	2.0	1	22687	2	1	87	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 9,82	MAY 8,82	1536.0	36.3	*****	4.11	0.1026	3.90	0.37
MAY 21,82	MAY 20,82	2027.0	U 66.7	*****	U 3.87	U 0.1596	U 7.50	U 0.84
MAY 24,82	MAY 23,82	416.0	32.5	*****	4.19	0.0910	3.15	0.52
MAY 29,82	MAY 28,82	985.0	41.3	*****	4.04	0.1072	4.20	0.41
MAY 31,82	MAY 30,82	955.0	19.0	*****	4.40	0.0592	1.20	0.26
JUN 2,82	JUN 1,82	1040.0	*****	*****	4.04	0.1246	6.75	0.57
JUN 5,82	JUN 4,82	*****	*****	*****	*****	*****	*****	*****
JUN 7,82	JUN 6,82	645.0	7.2	*****	5.22	0.0220	1.05	0.08
JUN 11,82	JUN 10,82	107.0	*****	*****	U 7.73	0.1314	*****	*****
JUN 14,82	JUN 13,82	79.0	*****	*****	U 8.45	0.0000	U 10.00	U 0.25
JUN 16,82	JUN 15,82	581.0	88.0	*****	3.73	0.2090	8.70	1.14
JUN 19,82	JUN 18,82	180.0	85.9	*****	U 6.41	0.1036	17.75	2.55
JUN 20,82	JUN 19,82	140.0	70.5	*****	3.76	0.1856	5.15	0.95
JUN 21,82	JUN 20,82	469.0	36.4	*****	4.23	0.0900	3.65	0.65
JUN 22,82	JUN 21,82	470.0	22.7	*****	4.37	0.0652	2.40	0.31
JUN 24,82	JUN 23,82	78.0	*****	U 6.89	U 7.25	*****	*****	*****
JUN 25,82	JUN 24,82	U 68.0	*****	3.37	U 7.36	*****	*****	*****
JUL 3,82	JUL 2,82	U 87.0	*****	U 6.82	U 7.92	*****	*****	*****
JUL 12,82	JUL 11,82	209.0	60.0	4.12	4.08	0.1142	U 9.65	0.81
JUL 18,82	JUL 17,82	448.0	U 127.0	3.54	3.48	U 0.3240	U 12.75	1.14
JUL 28,82	JUL 27,82	428.0	5.1	U 5.37	U 6.31	0.0268	0.50	0.08
JUL 29,82	JUL 28,82	U 432.0	4.9	4.86	5.51	0.0262	0.40	0.10
JUL 31,82	JUL 30,82	1085.0	35.6	4.20	4.09	0.0950	3.30	0.50
AUG 1,82	JUL 31,82	63.0	*****	*****	*****	*****	*****	*****
AUG 9,82	AUG 8,82	382.0	34.2	4.91	4.64	0.0460	6.70	0.60
AUG 21,82	AUG 20,82	308.0	22.6	4.46	4.63	0.0490	3.95	0.50
AUG 23,82	AUG 22,82	379.0	37.7	4.08	4.12	0.1004	3.55	0.64
AUG 25,82	AUG 24,82	305.0	42.1	4.28	4.19	0.1020	5.25	0.87
AUG 26,82	AUG 25,82	3412.0	12.9	4.65	4.56	0.0512	1.30	0.08
AUG 28,82	AUG 27,82	866.0	29.2	4.27	4.20	0.0906	3.25	0.42
AUG 29,82	AUG 28,82	69.0	5.4	*****	5.49	0.0298	0.20	0.04
AUG 31,82	AUG 30,82	86.0	60.0	*****	3.84	0.1764	6.75	0.93
SEP 2,82	SEP 1,82	1011.0	38.0	4.00	4.09	0.1012	3.55	0.30
SEP 4,82	SEP 3,82	103.0	*****	*****	4.27	0.0980	5.80	1.20
SEP 7,82	SEP 6,82	523.0	59.0	3.82	3.94	0.1698	5.55	0.71
SEP 15,82	SEP 14,82	182.0	U 128.0	3.53	3.44	0.3580	13.25	1.77
SEP 18,82	SEP 17,82	668.0	23.4	4.35	4.22	0.0644	2.60	0.38
SEP 21,82	SEP 20,82	143.0	71.0	*****	3.81	0.1618	7.50	1.59
SEP 23,82	SEP 22,82	153.0	12.1	*****	U 6.04	0.0280	2.50	0.20
SEP 24,82	SEP 23,82	112.0	27.5	*****	4.44	0.0662	4.65	0.65

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 9,82	MAY 8,82	0.13	0.07	0.025	0.030	0.025	0.390	0.0776
MAY 21,82	MAY 20,82	0.41	0.13	U 0.125	0.060	0.055	0.760	U 0.1349
MAY 24,82	MAY 23,82	0.23	0.10	0.070	0.055	0.035	0.400	0.0646
MAY 29,82	MAY 28,82	0.08	0.09	0.010	0.035	0.035	0.460	0.0912
MAY 31,82	MAY 30,82	0.03	0.03	0.005	<T 0.015	<W 0.005	0.102	0.0398
JUN 2,82	JUN 1,82	*****	0.26	*****	*****	*****	*****	0.0912
JUN 5,82	JUN 4,82	*****	*****	*****	*****	*****	*****	*****
JUN 7,82	JUN 6,82	0.16	0.04	0.065	<T 0.010	0.035	0.142	0.0060
JUN 11,82	JUN 10,82	*****	*****	*****	*****	*****	*****	U 0.0000
JUN 14,82	JUN 13,82	*****	U 1.50	*****	*****	*****	*****	U 0.0000
JUN 16,82	JUN 15,82	0.72	0.45	0.125	0.185	0.135	U 0.220	0.1862
JUN 19,82	JUN 18,82	*****	0.94	*****	*****	*****	*****	U 0.0004
JUN 20,82	JUN 19,82	*****	0.25	*****	*****	*****	*****	0.1738
JUN 21,82	JUN 20,82	0.28	0.34	0.060	0.240	0.180	0.790	0.0589
JUN 22,82	JUN 21,82	0.02	0.10	0.015	0.080	0.065	0.450	0.0427
JUN 24,82	JUN 23,82	*****	*****	*****	*****	*****	*****	U 0.0001
JUN 25,82	JUN 24,82	*****	*****	*****	*****	*****	*****	U 0.0000
JUL 3,82	JUL 2,82	*****	*****	*****	*****	*****	*****	U 0.0000
JUL 12,82	JUL 11,82	U 1.27	0.36	U 0.385	0.125	0.140	U 1.200	0.0832
JUL 18,82	JUL 17,82	0.66	0.50	0.150	0.090	0.145	0.830	0.3311
JUL 28,82	JUL 27,82	0.30	0.14	0.080	0.065	0.070	0.122	U 0.0005
JUL 29,82	JUL 28,82	0.05	0.08	0.020	0.040	0.025	0.160	0.0031
JUL 31,82	JUL 30,82	0.17	0.16	0.035	0.050	0.020	0.360	0.0813
AUG 1,82	JUL 31,82	*****	*****	*****	*****	*****	*****	*****
AUG 9,82	AUG 8,82	1.79	0.30	U 0.515	0.065	0.160	0.490	0.0229
AUG 21,82	AUG 20,82	0.69	0.69	0.155	0.160	0.195	0.730	0.0234
AUG 23,82	AUG 22,82	0.29	0.22	0.055	0.065	0.100	0.376	0.0759
AUG 25,82	AUG 24,82	0.33	U 0.77	0.090	U 0.370	U 0.375	1.240	0.0646
AUG 26,82	AUG 25,82	0.03	0.07	0.020	0.045	0.020	0.150	0.0275
AUG 28,82	AUG 27,82	0.22	0.09	0.035	0.045	<T 0.010	0.450	0.0631
AUG 29,82	AUG 28,82	*****	0.09	*****	*****	*****	0.124	0.0032
AUG 31,82	AUG 30,82	*****	0.23	*****	*****	*****	0.520	0.1445
SEP 2,82	SEP 1,82	0.06	0.20	0.020	0.045	0.070	0.332	0.0813
SEP 4,82	SEP 3,82	0.75	0.34	0.090	0.180	0.140	1.540	0.0537
SEP 7,82	SEP 6,82	0.30	0.18	0.065	0.040	0.035	0.710	0.1148
SEP 15,82	SEP 14,82	0.72	0.42	0.150	U 0.165	U 0.195	0.042	0.3631
SEP 18,82	SEP 17,82	0.21	U 0.43	0.020	0.150	0.245	0.076	0.0603
SEP 21,82	SEP 20,82	0.72	0.07	0.140	0.420	U 0.695	0.058	0.1549
SEP 23,82	SEP 22,82	0.36	0.31	0.035	0.065	0.180	0.850	U 0.0009
SEP 24,82	SEP 23,82	*****	0.34	*****	*****	*****	1.470	0.0363

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END		PRECIP START/END		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE		SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		HR.	HR.	HR.	HR.					01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER			
SEP 27,82	SEP 26,82	700	700	600	610	1	4.8	1	22688	2	1	80		
SEP 28,82	SEP 27,82	700	700	715	720	1	7.0	1	22689	2	1	102	A J	
OCT 2,82	OCT 1,82	700	700	1205	1210	1	8.0	1	22690	2	1	84	J	
OCT 8,82	OCT 7,82	700	700	2030	2100	1	26.0	1	22691	2	1	****	G J	
OCT 13,82	OCT 12,82	700	700	530	600	1	2.3	1	22692	2	1	59		
OCT 14,82	OCT 13,82	700	700	15	25	1	10.2	1	22693	2	1	105		
OCT 15,82	OCT 14,82	700	700	715	720	1	1.4	1	22694	2	1	55		
OCT 16,82	OCT 15,82	700	700	1000	1003	1	1.0	1	22695	2	1	46		
OCT 17,82	OCT 16,82	700	700	915	920	1	2.0	1	22696	2	1	88		
OCT 21,82	OCT 20,82	700	700	2020	2025	1	3.2	1	22697	2	1	90	D	
NOV 1,82	OCT 31,82	700	700	1705	2210	1	6.8	1	22698	2	1	46		
NOV 2,82	NOV 1,82	700	700	620	640	1	7.0	1	22699	2	1	93	NT C	
NOV 3,82	NOV 2,82	700	700	750	815	1	2.8	1	22700	2	1	71		
NOV 4,82	NOV 3,82	700	700	1715	1755	1	27.3	1	22701	2	1	107	J	
NOV 5,82	NOV 4,82	700	700	1930	1830	1	24.0	1	22702	2	1	110	HM	
NOV 6,82	NOV 5,82	700	700	700	705	1	2.3	1	22703	2	1	77		
NOV 12,82	NOV 11,82	700	700	1605	1610	1	2.2	1	22704	2	1	51		
NOV 13,82	NOV 12,82	700	700	1815	1820	1	15.0	1	22705	2	1	45		
NOV 15,82	NOV 14,82	700	700	2350	15	2	16.3	2	22706	2	1	****	E	
NOV 22,82	NOV 21,82	700	700	1610	1620	1	5.3	2	22707	2	1	76		
NOV 23,82	NOV 22,82	700	700	700	900	1	****	2	22708	2	1	****		
NOV 24,82	NOV 23,82	700	700	210	220	1	17.3	2	22709	2	1	88		
NOV 26,82	NOV 25,82	700	700	1635	1650	2	5.3	2	22710	2	1	74		
NOV 29,82	NOV 28,82	700	700	2040	2050	1	9.3	2	22711	2	1	45		
NOV 30,82	NOV 29,82	700	700	1000	955	1	6.3	2	22712	2	1	100		
DEC 1,82	NOV 30,82	700	700	925	930	1	22.1	2	22713	2	1	105		
DEC 3,82	DEC 2,82	700	700	1010	1100	1	8.1	2	22714	2	1	94		
DEC 6,82	DEC 5,82	700	700	120	125	1	6.5	2	22715	2	1	135	NJ	
DEC 16,82	DEC 15,82	700	700	600	625	1	17.1	2	22717	2	1	91		
DEC 17,82	DEC 16,82	700	700	700	730	3	4.9	2	22718	2	1	91		
DEC 20,82	DEC 19,82	700	700	2100	2135	2	4.3	2	22719	2	1	****	EF	
DEC 21,82	DEC 20,82	700	700	1900	1930	2	2.1	2	22720	2	1	****	EF	
DEC 24,82	DEC 23,82	700	700	630	650	1	3.5	2	22721	2	1	50		
DEC 25,82	DEC 24,82	700	700	2000	2100	1	4.3	2	22722	2	1	83	J	
DEC 26,82	DEC 25,82	700	700	2305	2310	1	4.3	2	22723	2	1	112	H	
DEC 28,82	DEC 27,82	700	700	100	110	1	2.7	2	22724	2	1	56	H	
DEC 29,82	DEC 28,82	700	700	2000	2010	1	2.3	2	22725	2	1	157	N	

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 27,82	SEP 26,82	248.0	14.5	4.80	5.90	0.0370	2.50	0.44
SEP 28,82	SEP 27,82	458.0	11.5	4.63	4.99	0.0454	1.40	0.44
OCT 2,82	OCT 1,82	433.0	66.0	4.30	3.75	0.1796	6.20	0.87
OCT 8,82	OCT 7,82	1856.0	*****	U 4.57	4.09	0.0880	2.90	0.23
OCT 13,82	OCT 12,82	87.0	*****	*****	U 6.39	0.0778	12.90	U 5.18
OCT 14,82	OCT 13,82	692.0	31.0	4.28	4.13	0.0964	2.25	0.68
OCT 15,82	OCT 14,82	50.0	*****	*****	4.60	0.0494	1.50	0.47
OCT 16,82	OCT 15,82	U 30.0	*****	*****	U 5.82	0.0290	U 1.50	U 0.10
OCT 17,82	OCT 16,82	114.0	*****	*****	4.88	0.0390	1.40	0.03
OCT 21,82	OCT 20,82	186.0	31.0	4.35	4.25	0.0760	3.45	0.66
NOV 1,82	OCT 31,82	U 203.0	68.0	3.82	3.79	0.1616	6.95	1.35
NOV 2,82	NOV 1,82	421.0	U 96.0	4.22	4.21	0.0780	3.50	0.54
NOV 3,82	NOV 2,82	129.0	*****	4.39	4.54	0.0600	4.15	0.53
NOV 4,82	NOV 3,82	1884.0	18.6	4.85	4.33	0.0682	1.50	0.24
NOV 5,82	NOV 4,82	1705.0	6.5	*****	4.79	0.0328	0.40	0.05
NOV 6,82	NOV 5,82	114.0	*****	*****	4.42	0.0534	1.10	0.40
NOV 12,82	NOV 11,82	73.0	*****	*****	3.90	0.1436	4.35	1.11
NOV 13,82	NOV 12,82	U 435.0	*****	4.34	*****	*****	*****	*****
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 22,82	NOV 21,82	261.0	*****	4.20	4.30	0.0814	3.20	0.40
NOV 23,82	NOV 22,82	6.0	*****	*****	*****	*****	*****	*****
NOV 24,82	NOV 23,82	984.0	30.5	4.31	4.14	0.0918	2.55	0.51
NOV 26,82	NOV 25,82	253.0	*****	4.28	4.13	0.1034	2.85	0.62
NOV 29,82	NOV 28,82	U 269.0	23.3	4.36	4.41	0.0654	2.15	0.53
NOV 30,82	NOV 29,82	407.0	20.6	4.41	4.44	0.0694	2.15	0.37
DEC 1,82	NOV 30,82	1491.0	*****	*****	3.78	0.1840	6.20	1.16
DEC 3,82	DEC 2,82	491.0	32.5	4.05	4.09	0.0966	2.50	0.50
DEC 6,82	DEC 5,82	566.0	14.2	4.26	4.75	0.0436	1.70	0.25
DEC 16,82	DEC 15,82	1000.0	21.0	4.39	4.33	0.0664	1.40	0.38
DEC 17,82	DEC 16,82	288.0	26.5	4.25	4.25	0.0774	2.10	0.54
DEC 20,82	DEC 19,82	*****	*****	*****	*****	*****	*****	*****
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	113.0	*****	*****	4.35	0.0784	5.05	0.85
DEC 25,82	DEC 24,82	229.0	22.0	3.82	4.36	0.0664	2.00	0.32
DEC 26,82	DEC 25,82	309.0	13.2	5.03	5.04	0.0398	2.00	0.24
DEC 28,82	DEC 27,82	98.0	*****	*****	4.88	0.0426	2.10	0.60
DEC 29,82	DEC 28,82	232.0	10.1	4.70	4.85	0.0362	1.05	0.16

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE LAB H+ MG/L
SEP 27,82	SEP 26,82	0.17	0.34	0.040	0.055	0.110	U 1.520	U 0.0013
SEP 28,82	SEP 27,82	0.13	0.24	0.010	0.055	0.100	0.680	0.0102
OCT 2,82	OCT 1,82	0.27	0.25	0.040	0.085	0.075	0.700	0.1778
OCT 8,82	OCT 7,82	0.07	0.09	0.020	0.040	0.035	*****	0.0813
OCT 13,82	OCT 12,82	*****	U 1.16	*****	*****	*****	*****	U 0.0004
OCT 14,82	OCT 13,82	0.05	0.14	0.035	0.070	0.120	0.368	0.0741
OCT 15,82	OCT 14,82	*****	0.19	*****	*****	*****	*****	0.0251
OCT 16,82	OCT 15,82	*****	*****	*****	*****	*****	*****	U 0.0015
OCT 17,82	OCT 16,82	0.06	0.16	0.025	0.070	0.120	0.198	0.0132
OCT 21,82	OCT 20,82	0.62	0.77	0.145	0.150	0.540	0.400	0.0562
NOV 1,82	OCT 31,82	0.87	0.24	0.210	0.110	0.155	0.710	0.1622
NOV 2,82	NOV 1,82	0.25	0.13	0.040	0.060	0.055	U 0.610	0.0617
NOV 3,82	NOV 2,82	*****	0.19	*****	*****	*****	0.960	0.0288
NOV 4,82	NOV 3,82	0.02	0.06	<W 0.005	0.015	0.035	0.136	0.0468
NOV 5,82	NOV 4,82	0.04	<T 0.01	<W 0.005	0.015	0.025	0.036	0.0162
NOV 6,82	NOV 5,82	*****	0.08	*****	*****	*****	0.262	0.0380
NOV 12,82	NOV 11,82	0.46	0.31	0.075	0.120	0.215	*****	0.1259
NOV 13,82	NOV 12,82	*****	*****	*****	*****	*****	*****	*****
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	*****
NOV 22,82	NOV 21,82	0.50	0.51	0.075	0.175	0.330	0.380	0.0501
NOV 23,82	NOV 22,82	*****	*****	*****	*****	*****	*****	*****
NOV 24,82	NOV 23,82	0.02	0.13	<W 0.005	<W 0.005	0.040	0.338	0.0724
NOV 26,82	NOV 25,82	0.18	0.32	0.030	0.020	0.075	0.590	0.0741
NOV 29,82	NOV 28,82	0.13	0.34	0.010	0.145	0.190	0.550	0.0389
NOV 30,82	NOV 29,82	0.16	0.23	0.005	U 0.105	U 0.135	0.400	0.0363
DEC 1,82	NOV 30,82	1.46	0.61	0.250	0.320	0.430	*****	0.1660
DEC 3,82	DEC 2,82	0.11	0.32	0.030	0.030	0.150	*****	0.0813
DEC 6,82	DEC 5,82	0.08	0.18	0.020	0.065	0.140	0.500	0.0178
DEC 16,82	DEC 15,82	0.04	0.08	0.020	0.020	0.035	0.198	0.0468
DEC 17,82	DEC 16,82	0.08	0.19	0.020	0.065	0.100	0.420	0.0562
DEC 20,82	DEC 19,82	*****	*****	*****	*****	*****	*****	*****
DEC 21,82	DEC 20,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	0.41	0.88	0.075	0.345	0.570	1.440	0.0447
DEC 25,82	DEC 24,82	0.13	0.58	0.040	0.185	0.330	0.254	0.0437
DEC 26,82	DEC 25,82	0.23	0.67	0.040	0.370	0.470	0.470	0.0091
DEC 28,82	DEC 27,82	0.30	0.61	0.070	0.600	0.610	0.580	0.0132
DEC 29,82	DEC 28,82	0.12	0.28	0.035	0.055	0.275	0.158	0.0141

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		START/END HR. HR.	START/END HR. HR.	01-RAIN 02-SNOW	01-STD. 02-NIPHER								
03-COMP/04-ICE													
JAN 4,82	JAN 3,82	800	800	500	900	2	****	*	22076	2	1	****	
JAN 5,82	JAN 4,82	800	800	1003	40	3	****	*	22077	2	1	****	
JAN 11,82	JAN 10,82	800	800	1900	600	2	****	*	22078	2	1	****	C
JAN 13,82	JAN 12,82	800	800	1130	1300	2	****	*	22079	2	1	****	H
JAN 16,82	JAN 15,82	800	800	900	1330	2	****	*	22080	2	1	****	
JAN 23,82	JAN 22,82	800	800	****	****	2	****	*	22081	2	1	****	
JAN 30,82	JAN 29,82	800	800	830	1330	2	****	*	22082	2	1	****	
JAN 31,82	JAN 30,82	800	800	800	1230	2	****	*	22083	2	1	****	
FEB 1,82	JAN 31,82	800	800	1430	300	2	****	*	22084	2	1	****	
FEB 4,82	FEB 3,82	800	800	900	1300	2	****	*	22085	2	1	****	
FEB 6,82	FEB 5,82	800	800	2200	500	2	****	*	22086	2	1	****	
FEB 19,82	FEB 18,82	800	800	2200	830	2	****	*	22087	2	1	****	H
FEB 20,82	FEB 19,82	800	800	800	1230	1	****	*	22088	2	1	****	
FEB 21,82	FEB 20,82	800	800	2100	300	2	****	*	22089	2	1	****	
MAR 2,82	MAR 1,82	800	800	1500	2200	2	****	*	22090	2	1	****	
MAR 5,82	MAR 4,82	800	800	1400	2330	3	****	*	22091	2	1	****	
MAR 7,82	MAR 6,82	800	800	2300	300	2	****	*	22092	2	1	****	
MAR 9,82	MAR 8,82	800	800	300	800	2	****	*	22093	2	1	****	
MAR 17,82	MAR 16,82	800	800	2000	800	3	****	*	22097	2	1	****	
MAR 19,82	MAR 18,82	800	800	1800	400	3	****	*	22098	2	1	****	
MAR 22,82	MAR 21,82	800	800	600	1800	3	****	*	22099	2	1	****	
MAR 26,82	MAR 25,82	800	800	900	2200	2	****	*	22100	2	1	****	
MAR 27,82	MAR 26,82	800	800	2100	700	3	****	*	22101	2	1	****	
APR 1,82	MAR 31,82	800	800	1600	1800	1	****	*	22102	2	1	****	
APR 3,82	APR 2,82	800	800	100	1900	3	****	*	22103	2	1	****	C
APR 11,82	APR 10,82	800	800	500	800	2	****	*	22104	2	1	****	
APR 13,82	APR 12,82	800	800	300	800	1	****	*	22105	2	1	****	
APR 18,82	APR 17,82	1030	1100	1030	1100	1	****	*	22107	2	1	****	
APR 21,82	APR 20,82	845	200	****	****	1	****	*	22108	2	1	****	CA

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUC.T. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATF AS N MG/L
JAN 4,82	JAN 3,82	441.0	23.2	4.32	4.35	0.0926	1.80	0.38
JAN 5,82	JAN 4,82	340.0	24.2	*****	6.50	0.0548	1.90	0.82
JAN 11,82	JAN 10,82	438.0	16.5	4.43	4.36	0.0792	1.05	0.48
JAN 13,82	JAN 12,82	115.0	17.7	*****	5.23	*****	1.30	0.53
JAN 16,82	JAN 15,82	199.0	*****	*****	4.25	*****	2.95	1.12
JAN 23,82	JAN 22,82	467.0	7.2	4.63	4.91	0.0504	0.55	0.15
JAN 30,82	JAN 29,82	426.0	U 30.6	*****	4.40	0.0870	2.50	U 0.93
JAN 31,82	JAN 30,82	240.0	22.4	*****	4.31	*****	1.20	0.39
FEB 1,82	JAN 31,82	436.0	18.2	*****	4.36	0.0788	0.80	0.33
FEB 4,82	FEB 3,82	444.0	22.7	*****	4.32	0.0832	1.25	0.40
FEB 6,82	FEB 5,82	456.0	39.0	*****	4.04	0.1236	0.75	1.06
FEB 19,82	FEB 18,82	453.0	62.0	*****	4.12	0.1420	2.95	1.90
FEB 20,82	FEB 19,82	57.0	*****	*****	3.67	*****	8.05	1.72
FEB 21,82	FEB 20,82	53.0	*****	*****	3.71	*****	5.80	2.25
MAR 2,82	MAR 1,82	100.0	*****	*****	U 4.41	*****	10.40	U 4.75
MAR 5,82	MAR 4,82	431.0	54.8	*****	3.93	0.1918	3.70	1.09
MAR 7,82	MAR 6,82	127.0	73.8	*****	3.82	*****	5.15	1.68
MAR 9,82	MAR 8,82	35.0	*****	*****	4.22	*****	1.55	1.52
MAR 17,82	MAR 16,82	1442.0	26.1	*****	4.53	0.0592	2.40	0.56
MAR 19,82	MAR 18,82	343.0	91.5	*****	3.79	0.2128	7.15	1.90
MAR 22,82	MAR 21,82	1326.0	66.0	*****	3.94	0.1518	5.95	1.24
MAR 26,82	MAR 25,82	1435.0	68.5	*****	3.98	0.1518	6.35	1.53
MAR 27,82	MAR 26,82	935.0	70.8	*****	3.99	0.1506	6.40	U 1.55
APR 1,82	MAR 31,82	1435.0	22.1	*****	4.97	0.0406	3.20	0.71
APR 3,82	APR 2,82	1214.0	5.5	*****	5.66	0.0240	0.60	0.05
APR 11,82	APR 10,82	182.0	*****	*****	4.27	0.1028	10.15	> 2.00
APR 13,82	APR 12,82	422.0	69.0	*****	3.99	0.1634	6.95	1.54
APR 18,82	APR 17,82	431.0	56.5	*****	4.15	0.1546	7.45	1.10
APR 21,82	APR 20,82	660.0	51.0	*****	4.02	0.1356	4.75	0.82

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 4,82	JAN 3,82	0.18	0.22	0.010	0.020	0.090	0.152	0.0447
JAN 5,82	JAN 4,82	U 2.39	0.93	U 0.320	0.180	0.620	0.226	U 0.0003
JAN 11,82	JAN 10,82	0.28	0.23	0.010	0.030	0.100	0.080	0.0437
JAN 13,82	JAN 12,82	U 1.22	U 1.17	U 0.190	0.070	0.450	0.074	U 0.0059
JAN 16,82	JAN 15,82	U 0.76	0.91	0.100	0.320	0.510	0.590	0.0562
JAN 23,82	JAN 22,82	0.05	0.08	0.005	0.010	0.060	0.196	0.0123
JAN 30,82	JAN 29,82	U 0.85	0.73	0.080	0.080	0.480	U 0.570	0.0398
JAN 31,82	JAN 30,82	0.06	0.19	<T 0.005	0.030	0.050	0.158	0.0490
FEB 1,82	JAN 31,82	0.05	0.08	<T 0.005	0.010	0.050	0.034	0.0437
FEB 4,82	FEB 3,82	0.07	U 0.35	<T 0.005	0.020	U 0.240	0.158	0.0479
FEB 6,82	FEB 5,82	0.12	0.35	0.010	0.010	0.150	0.064	0.0912
FEB 19,82	FEB 18,82	1.12	U 3.40	0.190	0.050	U 3.700	0.410	0.0759
FEB 20,82	FEB 19,82	*****	1.18	*****	*****	*****	0.910	0.2138
FEB 21,82	FEB 20,82	*****	0.77	*****	*****	*****	*****	0.1950
MAR 2,82	MAR 1,82	*****	U 2.90	*****	*****	*****	U 3.450	U 0.0389
MAR 5,82	MAR 4,82	0.35	0.40	0.035	0.045	0.220	0.520	0.1175
MAR 7,82	MAR 6,82	0.99	0.84	0.110	0.085	0.550	0.600	0.1514
MAR 9,82	MAR 8,82	*****	> 1.50	*****	*****	*****	*****	0.0603
MAR 17,82	MAR 16,82	0.45	0.17	0.085	0.045	0.100	0.344	0.0295
MAR 19,82	MAR 18,82	U 0.99	0.30	U 0.120	U 0.105	0.060	0.430	0.1622
MAR 22,82	MAR 21,82	0.59	0.14	0.080	0.035	0.055	0.790	0.1148
MAR 26,82	MAR 25,82	0.50	0.28	0.070	0.030	0.120	1.410	0.1047
MAR 27,82	MAR 26,82	0.47	0.28	0.070	0.030	0.120	1.420	0.1023
APR 1,82	MAR 31,82	U 1.14	U 0.29	U 0.170	0.030	0.150	0.490	0.0107
APR 3,82	APR 2,82	0.11	0.02	0.020	0.020	0.020	0.122	0.0022
APR 11,82	APR 10,82	U 2.79	0.73	U 0.365	0.135	0.370	U 1.880	0.0537
APR 13,82	APR 12,82	0.97	0.29	0.105	0.045	0.075	1.180	0.1023
APR 18,82	APR 17,82	1.14	0.35	0.180	0.160	0.160	1.020	0.0708
APR 21,82	APR 20,82	0.36	0.19	0.060	0.050	0.030	0.700	0.0955

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END	PRECIP HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS					
											01-RAIN	01-STD.	02-APIOS	01-MOE	FIELD	OFFICE
											02-SNOW	02-NIPHER	03-SPECIAL	03-AES		
03-COMP/04-ICE																
MAY 21,82	MAY 20,82	800 800	1000 1800	*	****	1	22109	2	1	****						
MAY 23,82	MAY 22,82	800 800	900 1800	*	****	1	22110	2	1	****						
MAY 24,82	MAY 23,82	800 800	600 1100	*	****	1	22111	2	1	****						
MAY 29,82	MAY 28,82	800 800	900 1700	*	****	1	22112	2	1	****						
MAY 31,82	MAY 30,82	800 800	1900 700	*	****	1	22113	2	1	****						
JUN 1,82	MAY 31,82	800 800	800 1500	*	****	1	22114	2	1	****						
JUN 2,82	JUN 1,82	800 800	930 1600	*	****	1	22115	2	1	****						
JUN 5,82	JUN 4,82	800 800	400 1800	*	****	1	22116	2	1	****						
JUN 6,82	JUN 5,82	800 800	700 2200	*	****	1	22117	2	1	****						
JUN 11,82	JUN 10,82	800 800	2100 300	1	9.0	1	22118	2	1	****	CJGE					
JUN 14,82	JUN 13,82	800 800	1900 2300	1	1.0	1	22119	2	1	170	ACIJ	NT				
JUN 19,82	JUN 18,82	800 800	100 500	1	1.0	1	22120	2	1	****	CIJ	T				
JUN 21,82	JUN 20,82	800 800	1900 800	1	2.5	1	22121	2	1	****	JG					
JUN 22,82	JUN 21,82	800 800	800 1930	1	6.0	1	22122	2	1	108	BJ					
JUN 23,82	JUN 22,82	800 800	1530 2000	1	8.0	1	22123	2	1	****	CJG					
JUN 24,82	JUN 23,82	800 800	1030 1800	1	7.0	1	22124	2	1	109	J	HM				
JUL 12,82	JUL 11,82	800 800	1430 2000	1	19.0	1	22125	2	1	94	C					
JUL 18,82	JUL 17,82	800 800	1645 1740	1	17.0	1	22126	2	1	95	C	T				
JUL 28,82	JUL 27,82	800 800	230 800	1	9.0	1	22127	2	1	78	C					
JUL 29,82	JUL 28,82	800 800	800 1230	1	6.0	1	22128	2	1	102		JC				
AUG 14,82	AUG 13,82	800 800	1500 1700	1	2.0	1	22129	2	1	****	G					
AUG 20,82	AUG 19,82	800 800	1430 130	1	16.4	1	22130	2	1	92						
AUG 23,82	AUG 22,82	800 800	**** ****	1	7.4	1	22131	2	1	85						
AUG 25,82	AUG 24,82	800 800	2100 800	1	16.0	1	22134	2	1	100						
AUG 26,82	AUG 25,82	800 800	800 1330	1	20.0	1	22135	2	1	87		M				
AUG 28,82	AUG 27,82	800 800	1230 1400	1	6.4	1	22136	2	1	84						
AUG 29,82	AUG 28,82	800 800	1500 1700	1	5.8	1	22137	2	1	81		HM				
SEP 2,82	SEP 1,82	800 800	2000 400	1	11.0	1	22138	2	1	89		J				
SEP 4,82	SEP 3,82	800 800	1030 1200	1	3.0	1	22140	2	1	67						
SEP 15,82	SEP 14,82	800 800	900 100	1	25.0	1	22142	2	1	35		N				
SEP 18,82	SEP 17,82	800 800	2200 700	1	13.0	1	22143	2	1	88	C	HM				
SEP 21,82	SEP 20,82	800 800	2100 130	1	9.7	1	22144	2	1	86	C					
SEP 24,82	SEP 23,82	800 800	600 1530	1	10.0	1	22145	2	1	59	C					
SEP 27,82	SEP 26,82	800 800	300 800	1	7.4	1	22146	2	1	94						
SEP 28,82	SEP 27,82	800 800	800 2300	1	5.0	1	22147	2	1	129	CD	N				
OCT 8,82	OCT 7,82	800 800	1730 200	1	16.0	1	22149	2	1	81						
OCT 9,82	OCT 8,82	800 800	1600 500	1	9.0	1	22150	2	1	64						
OCT 12,82	OCT 11,82	800 800	1830 630	1	4.8	1	22151	2	1	78	D					
OCT 14,82	OCT 13,82	800 800	2130 400	1	2.6	1	22152	2	1	77	C					
OCT 15,82	OCT 14,82	800 800	2000 400	1	3.8	1	22153	2	1	73		J				

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 21,82	MAY 20,82	268.0	18.5	*****	4.67	0.0448	2.55	0.29
MAY 23,82	MAY 22,82	368.0	38.7	*****	4.05	0.1070	3.90	0.38
MAY 24,82	MAY 23,82	72.0	38.6	*****	4.05	0.1010	3.95	0.38
MAY 29,82	MAY 28,82	1447.0	25.7	*****	4.23	0.0736	2.15	0.29
MAY 31,82	MAY 30,82	57.0	*****	*****	3.45	U 0.3792	> 10.00	U 2.04
JUN 1,82	MAY 31,82	604.0	52.0	*****	3.91	0.1530	5.90	0.40
JUN 2,82	JUN 1,82	366.0	70.8	*****	3.83	0.2288	6.30	0.82
JUN 5,82	JUN 4,82	38.0	*****	*****	5.58	0.0314	1.25	0.20
JUN 6,82	JUN 5,82	426.0	11.4	*****	4.86	0.0348	1.15	0.19
JUN 11,82	JUN 10,82	*****	*****	*****	*****	*****	*****	*****
JUN 14,82	JUN 13,82	109.0	64.5	*****	3.63	0.1690	5.15	1.36
JUN 19,82	JUN 18,82	*****	109.0	*****	3.57	0.2584	10.80	1.51
JUN 21,82	JUN 20,82	*****	*****	*****	4.29	0.0562	*****	*****
JUN 22,82	JUN 21,82	417.0	9.6	*****	4.86	0.0318	1.15	0.19
JUN 23,82	JUN 22,82	*****	*****	*****	*****	*****	*****	*****
JUN 24,82	JUN 23,82	490.0	4.2	*****	5.71	0.0218	0.35	0.16
JUL 12,82	JUL 11,82	1152.0	51.5	4.02	3.91	0.1376	5.20	0.50
JUL 18,82	JUL 17,82	1039.0	58.5	3.86	3.81	0.1534	6.50	0.39
JUL 28,82	JUL 27,82	453.0	8.8	4.73	4.80	0.0378	0.70	0.14
JUL 29,82	JUL 28,82	394.0	5.9	4.85	5.28	0.0278	0.40	0.09
AUG 14,82	AUG 13,82	86.0	*****	*****	4.65	0.0450	2.30	0.37
AUG 20,82	AUG 19,82	969.0	21.2	4.50	4.39	0.0578	2.80	0.30
AUG 23,82	AUG 22,82	406.0	41.3	4.08	4.01	0.1084	3.65	0.62
AUG 25,82	AUG 24,82	1032.0	31.9	4.16	4.12	0.1070	3.00	0.39
AUG 26,82	AUG 25,82	1119.0	8.9	4.72	4.64	0.0484	U 0.75	0.03
AUG 28,82	AUG 27,82	348.0	31.2	4.24	4.18	0.0974	3.15	0.54
AUG 29,82	AUG 28,82	304.0	2.6	5.21	5.47	0.0266	0.10	0.02
SEP 2,82	SEP 1,82	632.0	53.0	4.18	3.93	0.1428	4.95	0.49
SEP 4,82	SEP 3,82	129.0	*****	*****	5.45	0.0258	1.05	0.17
SEP 15,82	SEP 14,82	U 571.0	34.1	4.22	4.02	0.1026	2.80	0.40
SEP 18,82	SEP 17,82	739.0	26.0	4.34	4.17	0.0860	2.35	0.38
SEP 21,82	SEP 20,82	536.0	39.5	4.13	4.00	0.1234	3.55	0.81
SEP 24,82	SEP 23,82	381.0	14.0	4.44	4.47	0.0514	1.45	0.21
SEP 27,82	SEP 26,82	450.0	12.1	4.40	4.55	0.0474	0.90	0.22
SEP 28,82	SEP 27,82	414.0	U 84.0	U 3.60	U 3.64	U 0.2360	U 6.30	1.57
OCT 8,82	OCT 7,82	833.0	52.0	4.02	3.85	0.1508	5.30	0.79
OCT 9,82	OCT 8,82	374.0	53.0	4.01	3.84	0.1602	5.30	0.79
OCT 12,82	OCT 11,82	242.0	42.5	4.08	3.95	0.1182	3.50	0.90
OCT 14,82	OCT 13,82	129.0	*****	*****	3.80	0.1630	4.75	1.91
OCT 15,82	OCT 14,82	180.0	*****	4.06	4.58	0.0522	1.15	0.35

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 21,82	MAY 20,82	0.22	0.06	0.050	0.085	0.025	0.580	0.0214
MAY 23,82	MAY 22,82	0.10	0.03	0.015	0.030	<T 0.010	0.304	0.0891
MAY 24,82	MAY 23,82	0.11	0.04	0.020	0.030	0.025	0.326	0.0891
MAY 29,82	MAY 28,82	0.03	0.04	0.005	<T 0.010	<T 0.010	0.232	0.0589
MAY 31,82	MAY 30,82	*****	U 0.65	*****	*****	*****	*****	0.3548
JUN 1,82	MAY 31,82	0.10	0.07	0.015	0.060	0.030	0.560	0.1230
JUN 2,82	JUN 1,82	0.13	0.20	0.020	0.030	0.045	0.400	0.1479
JUN 5,82	JUN 4,82	*****	0.07	*****	*****	*****	*****	0.0026
JUN 6,82	JUN 5,82	0.16	0.07	0.035	U 0.270	0.045	0.182	0.0138
JUN 11,82	JUN 10,82	*****	*****	*****	*****	*****	*****	*****
JUN 14,82	JUN 13,82	*****	0.24	*****	*****	*****	0.142	0.2344
JUN 19,82	JUN 18,82	0.59	0.34	0.100	0.105	0.040	0.720	0.2692
JUN 21,82	JUN 20,82	*****	*****	*****	*****	*****	*****	0.0513
JUN 22,82	JUN 21,82	0.03	0.06	0.010	0.035	0.030	0.290	0.0138
JUN 23,82	JUN 22,82	*****	*****	*****	*****	*****	*****	*****
JUN 24,82	JUN 23,82	0.02	0.10	0.010	0.065	0.070	0.156	0.0019
JUL 12,82	JUL 11,82	0.19	0.14	0.030	0.025	0.035	0.326	0.1230
JUL 18,82	JUL 17,82	0.17	0.12	0.025	0.030	0.030	0.430	0.1549
JUL 28,82	JUL 27,82	0.06	0.07	0.015	0.045	0.020	0.158	0.0158
JUL 29,82	JUL 28,82	0.06	0.07	0.020	0.040	0.030	0.112	0.0052
AUG 14,82	AUG 13,82	*****	0.16	*****	*****	*****	*****	0.0224
AUG 20,82	AUG 19,82	0.28	0.28	0.050	<T 0.010	0.015	0.430	0.0407
AUG 23,82	AUG 22,82	0.29	0.13	0.035	0.020	0.015	0.298	0.0977
AUG 25,82	AUG 24,82	0.10	0.09	0.010	0.030	0.015	0.358	0.0759
AUG 26,82	AUG 25,82	0.01	<T 0.01	<W 0.005	0.005	<W 0.005	0.038	0.0229
AUG 28,82	AUG 27,82	0.21	0.13	0.030	0.075	U 0.040	0.560	0.0661
AUG 29,82	AUG 28,82	0.03	0.07	0.015	0.035	0.035	0.080	0.0034
SEP 2,82	SEP 1,82	0.11	0.19	0.035	0.080	0.065	0.460	0.1175
SEP 4,82	SEP 3,82	0.30	0.11	0.035	0.035	0.020	0.240	0.0035
SEP 15,82	SEP 14,82	0.06	0.13	<W 0.005	<W 0.005	0.015	0.346	0.0955
SEP 18,82	SEP 17,82	0.10	0.10	0.005	0.045	0.070	0.620	0.0676
SEP 21,82	SEP 20,82	0.30	0.31	0.045	0.090	0.125	0.740	0.1000
SEP 24,82	SEP 23,82	0.05	0.06	<W 0.005	<T 0.015	0.020	0.232	0.0339
SEP 27,82	SEP 26,82	0.05	0.22	<W 0.005	0.055	0.090	0.086	0.0282
SEP 28,82	SEP 27,82	0.33	0.35	U 0.070	0.055	0.080	0.460	0.2291
OCT 8,82	OCT 7,82	0.24	0.19	0.045	0.040	0.020	0.710	0.1413
OCT 9,82	OCT 8,82	0.15	0.18	0.040	0.035	0.020	0.710	0.1445
OCT 12,82	OCT 11,82	0.22	0.25	0.045	0.040	0.025	0.450	0.1122
OCT 14,82	OCT 13,82	U 0.66	0.28	0.125	0.060	0.025	0.104	0.1585
OCT 15,82	OCT 14,82	0.06	0.07	0.025	0.030	0.020	0.284	0.0263

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY/AFROCHEM #09

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN	02-STD.
OCT 16,82	OCT 15,82	800 800	1900 700	1	1.2	1	22154	2	1	14		N
OCT 21,82	OCT 20,82	800 800	1600 300	1	5.8	1	22155	2	1	69		
OCT 22,82	OCT 21,82	800 800	1330 1900	1	1.2	1	22156	2	1	26		N
NOV 2,82	NOV 1,82	800 800	1400 800	1	12.5	2	22157	2	1	60		
NOV 3,82	NOV 2,82	800 800	800 2300	1	***	*	22158	2	1	***		T
NOV 4,82	NOV 3,82	800 800	1000 800	1	19.3	2	22159	2	1	20	C	N
NOV 5,82	NOV 4,82	800 800	900 200	1	14.9	2	22160	2	1	97	C	
NOV 12,82	NOV 11,82	800 800	1900 600	1	4.1	2	22161	2	1	136		N
NOV 13,82	NOV 12,82	800 800	1500 400	3	10.9	2	22162	2	1	89		
NOV 15,82	NOV 14,82	800 800	1900 400	2	0.7	2	22163	2	1	44		N
NOV 21,82	NOV 20,82	800 800	1900 2230	1	2.9	2	22164	2	1	***	EF	
NOV 23,82	NOV 22,82	800 800	1400 500	1	4.3	2	22165	2	1	***	EF	
NOV 27,82	NOV 26,82	800 800	1300 1900	2	1.1	2	22166	2	1	***	EF	
NOV 29,82	NOV 28,82	800 800	1700 800	3	12.9	2	22167	2	1	***	EF	
NOV 30,82	NOV 29,82	800 800	2300 500	1	0.4	2	22168	2	1	304		N
DEC 2,82	DEC 1,82	800 800	900 1230	1	0.5	2	22169	2	1	174		NT
DEC 3,82	DEC 2,82	800 800	2000 300	1	10.3	2	22170	2	1	96		
DEC 4,82	DEC 3,82	800 800	2100 300	1	9.3	2	22171	2	1	92		
DEC 6,82	DEC 5,82	800 800	2200 400	1	5.9	2	22172	2	1	77	C	
DEC 7,82	DEC 6,82	700 700	1500 1510	1	***	2	22716	2	1	***		
DEC 16,82	DEC 15,82	800 800	1400 800	1	17.6	2	22173	2	1	82		
DEC 24,82	DEC 23,82	800 800	1200 600	1	6.6	2	22174	2	1	***	EF	
DEC 25,82	DEC 24,82	800 800	1400 600	3	2.1	2	22175	2	1	***	EF	
DEC 26,82	DEC 25,82	800 800	1300 1700	1	4.9	2	22176	2	1	***	EG	

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY/AEROCHEM #09

PAGE : 5

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
OCT 16,82	OCT 15,82	U 11.0	*****	*****	*****	*****	*****	*****
OCT 21,82	OCT 20,82	259.0	24.5	4.33	4.31	0.0770	2.55	0.48
OCT 22,82	OCT 21,82	U 20.0	*****	*****	U 6.23	U 0.0268	*****	*****
NOV 2,82	NOV 1,82	487.0	34.5	4.07	4.05	0.0996	2.90	0.52
NOV 3,82	NOV 2,82	13.0	*****	*****	3.66	0.2006	*****	*****
NOV 4,82	NOV 3,82	U 249.0	16.5	*****	4.38	0.0616	1.00	0.24
NOV 5,82	NOV 4,82	936.0	6.9	*****	4.83	0.0340	0.45	0.10
NOV 12,82	NOV 11,82	358.0	26.0	*****	4.20	0.0832	2.30	0.53
NOV 13,82	NOV 12,82	628.0	26.2	*****	4.20	0.0826	2.30	0.53
NOV 15,82	NOV 14,82	U 20.0	*****	*****	4.03	0.1124	2.00	0.75
NOV 21,82	NOV 20,82	*****	*****	*****	*****	*****	*****	*****
NOV 23,82	NOV 22,82	*****	*****	*****	*****	*****	*****	*****
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	*****	*****	*****	*****	*****	*****	*****
NOV 30,82	NOV 29,82	78.0	*****	*****	*****	*****	*****	*****
DEC 2,82	DEC 1,82	56.0	*****	*****	3.57	0.2640	5.45	2.85
DEC 3,82	DEC 2,82	636.0	28.0	4.15	4.16	0.0850	2.20	0.31
DEC 4,82	DEC 3,82	551.0	68.5	3.77	3.78	0.1746	4.90	1.34
DEC 6,82	DEC 5,82	294.0	21.5	4.24	4.28	0.0648	1.60	0.29
DEC 7,82	DEC 6,82	32.0	*****	*****	4.12	0.1028	*****	*****
DEC 16,82	DEC 15,82	930.0	26.3	*****	4.28	0.0748	1.60	0.54
DEC 24,82	DEC 23,82	*****	*****	*****	*****	*****	*****	*****
DEC 25,82	DEC 24,82	*****	*****	*****	*****	*****	*****	*****
DEC 26,82	DEC 25,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY/AEROCHEM #09

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
OCT 16,82	OCT 15,82	*****	*****	*****	*****	*****	*****	*****
OCT 21,82	OCT 20,82	0.45	0.47	0.075	0.045	0.280	0.284	0.0490
OCT 22,82	OCT 21,82	*****	*****	*****	*****	*****	*****	0.0006
NOV 2,82	NOV 1,82	0.11	0.08	0.020	0.075	0.030	0.256	0.0891
NOV 3,82	NOV 2,82	*****	*****	*****	*****	*****	*****	0.2188
NOV 4,82	NOV 3,82	0.04	<W 0.01	<W 0.005	0.020	0.020	0.066	0.0417
NOV 5,82	NOV 4,82	0.04	<W 0.01	<W 0.005	0.010	0.025	0.066	0.0148
NOV 12,82	NOV 11,82	0.14	0.19	0.025	0.035	0.120	0.328	0.0631
NOV 13,82	NOV 12,82	0.14	0.18	0.025	0.030	0.155	0.314	0.0631
NOV 15,82	NOV 14,82	*****	*****	*****	*****	*****	*****	0.0933
NOV 21,82	NOV 20,82	*****	*****	*****	*****	*****	*****	*****
NOV 23,82	NOV 22,82	*****	*****	*****	*****	*****	*****	*****
NOV 27,82	NOV 26,82	*****	*****	*****	*****	*****	*****	*****
NOV 29,82	NOV 28,82	*****	*****	*****	*****	*****	*****	*****
NOV 30,82	NOV 29,82	*****	*****	*****	*****	*****	*****	*****
DEC 2,82	DEC 1,82	*****	0.48	*****	*****	*****	*****	0.2692
DEC 3,82	DEC 2,82	0.08	0.30	0.020	<T 0.005	0.160	0.044	0.0692
DEC 4,82	DEC 3,82	0.36	0.77	0.115	0.055	0.390	0.600	0.1660
DEC 6,82	DEC 5,82	0.08	0.20	0.020	0.025	0.120	0.106	0.0525
DEC 7,82	DEC 6,82	*****	*****	*****	*****	*****	*****	0.0759
DEC 16,82	DEC 15,82	0.04	0.13	0.010	0.050	0.060	0.230	0.0525
DEC 24,82	DEC 23,82	*****	*****	*****	*****	*****	*****	*****
DEC 25,82	DEC 24,82	*****	*****	*****	*****	*****	*****	*****
DEC 26,82	DEC 25,82	*****	*****	*****	*****	*****	*****	*****

**PART VI**

**NORTHWESTERN REGION**

**DAILY PRECIPITATION CHEMISTRY LISTINGS**

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (%)	COMMENTS								
		START/END HR.	END/HR.	START/END HR.	HR.																FIELD OFFICE
JAN 3,82	JAN 2,82	830	830	****	****	2	****	*	38038	2	1	****									
JAN 11,82	JAN 10,82	830	830	2000	200	2	5.1	2	38041	2	1	27	D	N							
JAN 23,82	JAN 22,82	830	830	1500	600	2	17.5	2	38048	2	1	27									
FEB 2,82	FEB 1,82	830	830	2200	200	2	2.3	2	38050	2	1	81	D								
FEB 23,82	FEB 22,82	830	830	100	400	4	2.9	2	38055	2	1	41	D	N							
FEB 28,82	FEB 27,82	830	830	100	830	2	6.7	2	38056	2	1	****	G	N							
MAR 8,82	MAR 7,82	830	830	1900	100	2	2.5	2	38057	2	1	64									
MAR 11,82	MAR 10,82	830	830	1500	1700	4	7.1	2	38058	2	1	103									
MAR 13,82	MAR 12,82	830	930	1300	830	3	8.1	2	38059	2	1	32		N							
MAR 17,82	MAR 16,82	830	830	2300	100	2	0.1	2	38070	2	1	408									
MAR 18,82	MAR 17,82	830	830	2400	200	2	6.3	2	38071	2	1	85	D	M							
MAR 21,82	MAR 20,82	830	830	2400	300	2	2.5	2	38072	2	1	97									
MAR 24,82	MAR 23,82	830	830	****	****	3	1.2	2	38073	2	1	39									
MAR 25,82	MAR 24,82	830	830	300	400	2	1.5	2	38074	2	1	26									
MAR 30,82	MAR 29,82	830	830	2400	300	2	2.4	2	38075	2	1	2	CD	N							
MAR 31,82	MAR 30,82	830	830	1000	1300	3	0.1	2	38076	2	1	****									
APR 3,82	APR 2,82	830	830	1300	1800	3	5.5	2	38077	2	1	232									
APR 4,82	APR 3,82	830	830	100	****	2	2.2	2	38078	2	1	25		HM							
APR 10,82	APR 9,82	830	830	1700	2000	2	7.1	2	38079	2	1	31		H							
APR 14,82	APR 13,82	830	830	1000	1200	1	2.7	2	38080	2	1	124		NY							
APR 15,82	APR 14,82	830	830	600	730	1	****	*	38081	2	1	****	C								
APR 19,82	APR 18,82	830	830	1500	1800	3	2.9	2	38082	2	1	72									

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/SES

#16

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 3,82	JAN 2,82	1162.0	9.2	*****	4.65	0.0578	0.35	0.21
JAN 11,82	JAN 10,82	U 232.0	*****	*****	4.62	0.0582	0.55	0.28
JAN 23,82	JAN 22,82	800.0	4.6	*****	4.90	0.0558	0.55	0.05
FEB 2,82	FEB 1,82	309.0	10.8	*****	4.58	0.0612	0.35	0.25
FEB 23,82	FEB 22,82	U 196.0	*****	*****	4.70	*****	1.10	0.21
FEB 28,82	FEB 27,82	U 238.0	33.7	*****	4.38	*****	3.10	1.24
MAR 8,82	MAR 7,82	265.0	9.8	*****	4.69	0.0768	0.60	0.17
MAR 11,82	MAR 10,82	1203.0	11.7	*****	4.82	0.0774	1.05	0.36
MAR 13,82	MAR 12,82	U 437.0	11.7	*****	4.72	0.0684	1.15	0.16
MAR 17,82	MAR 16,82	67.0	*****	*****	3.68	0.2170	6.80	0.87
MAR 18,82	MAR 17,82	881.0	6.0	*****	4.81	0.0374	0.30	0.07
MAR 21,82	MAR 20,82	399.0	20.0	*****	4.30	0.0678	1.35	0.12
MAR 24,82	MAR 23,82	U 77.0	*****	*****	4.42	0.0674	3.75	0.39
MAR 25,82	MAR 24,82	U 65.0	*****	*****	4.82	0.0388	1.00	0.08
MAR 30,82	MAR 29,82	U 10.0	*****	*****	*****	*****	*****	*****
MAR 31,82	MAR 30,82	*****	18.4	*****	4.72	0.0748	2.35	0.43
APR 3,82	APR 2,82	2097.0	12.5	*****	4.87	0.0396	1.70	0.18
APR 4,82	APR 3,82	91.0	*****	*****	4.84	0.0358	1.85	0.41
APR 10,82	APR 9,82	368.0	22.5	*****	4.48	0.0640	2.50	0.43
APR 14,82	APR 13,82	550.0	20.1	*****	U 5.88	U 0.0368	4.30	0.52
APR 15,82	APR 14,82	100.0	*****	*****	U 6.76	U 0.0508	6.60	1.19
APR 19,82	APR 18,82	346.0	6.8	*****	6.06	0.0200	0.70	0.27

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/SES

#16

PAGE : 3

REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 3,82	JAN 2,82	0.04	<T	0.01	0.005	0.010	0.026	0.0224
JAN 11,82	JAN 10,82	0.13		0.09	0.025	0.070	0.018	0.0240
JAN 23,82	JAN 22,82	0.08		0.04	0.005	0.020	0.080	0.0126
FEB 2,82	FEB 1,82	0.04		0.09	<T 0.005	<T 0.005	0.070	0.002
FEB 23,82	FEB 22,82	0.11		0.10	0.010	0.005	0.035	0.252
FEB 28,82	FEB 27,82	0.70		0.26	0.055	0.035	0.115	1.210
MAR 8,82	MAR 7,82	0.18		0.09	0.035	0.020	0.035	0.0417
MAR 11,82	MAR 10,82	0.24		0.04	0.025	0.010	0.030	0.358
MAR 13,82	MAR 12,82	0.07		0.13	0.020	0.095	0.110	0.0151
MAR 17,82	MAR 16,82	*****		0.29	*****	*****	*****	0.148
MAR 18,82	MAR 17,82	0.01	<T	0.01	<T 0.005	<T 0.005	0.005	0.0188
MAR 21,82	MAR 20,82	0.05		0.04	0.005	0.015	0.030	0.0155
MAR 24,82	MAR 23,82	0.29		0.08	0.050	0.035	0.100	0.004
MAR 25,82	MAR 24,82	0.09		0.28	0.020	0.080	U 0.195	0.0501
MAR 30,82	MAR 29,82	*****	*****	*****	*****	*****	*****	0.0380
MAR 31,82	MAR 30,82	0.56		0.03	0.060	0.045	0.040	0.510
APR 3,82	APR 2,82	0.36		0.08	0.075	0.030	0.050	0.0191
APR 4,82	APR 3,82	0.37		0.09	0.075	0.035	0.050	0.256
APR 10,82	APR 9,82	0.04		0.02	0.025	0.400	0.045	0.0135
APR 14,82	APR 13,82	U 0.70		0.19	0.055	0.045	0.125	0.740
APR 15,82	APR 14,82	U 2.00	U	0.75	U 0.190	0.715	U 0.390	1.290
APR 19,82	APR 18,82	0.25		0.10	0.030	0.070	0.045	U 0.0002
							0.384	U 0.0009

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AEROCHEM

#16

PAGE : 1

REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END		PRECIP START/END		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS
		HR.	HR.	HR.	HR.	01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER	02-APIOS 03-SPECIAL	01-MOE 03-AES	04-ON HYDRO	FIELD	OFFICE	
MAY 4,82	MAY 3,82	830	830	1730	2000	1	26.3	1	38089	2	1	25	
MAY 10,82	MAY 9,82	830	830	1700	400	1	21.8	1	38090	2	1	31	
MAY 11,82	MAY 10,82	830	830	2400	500	1	12.0	1	32006	2	1	****	CDG H
MAY 13,82	MAY 12,82	830	830	600	800	1	11.2	1	32007	2	1	****	CDG HCM
MAY 17,82	MAY 16,82	830	830	2000	2230	1	6.2	1	32008	2	1	****	CDG
MAY 18,82	MAY 17,82	830	830	1000	1100	1	12.2	1	32009	2	1	****	CDG HCM
MAY 19,82	MAY 18,82	830	830	1000	2430	1	14.0	1	32010	2	1	97	C C
MAY 30,82	MAY 29,82	830	830	2200	2400	1	12.8	1	32011	2	1	97	D T
JUN 1,82	MAY 31,82	820	830	1200	1400	1	5.0	1	32012	2	1	78	CD
JUN 7,82	JUN 6,82	830	830	500	700	1	8.0	1	32013	2	1	94	CD H
JUN 10,82	JUN 9,82	830	830	1600	1900	1	20.0	1	32014	2	1	100	C C
JUN 12,82	JUN 11,82	830	830	1500	2000	1	3.0	1	32015	2	1	73	CD
JUN 14,82	JUN 13,82	830	830	600	800	1	0.2	1	32016	2	1	202	N
JUN 21,82	JUN 20,82	830	830	1500	1700	1	1.1	1	32019	2	1	59	D
JUL 2,82	JUL 1,82	830	830	2400	300	1	3.5	1	32018	2	1	77	CD
JUL 6,82	JUL 5,82	200	700	****	****	1	19.2	1	32020	2	1	98	CD
JUL 7,82	JUL 6,82	830	830	1900	130	1	19.2	1	32021	2	1	36	CD N
JUL 9,82	JUL 8,82	830	930	700	800	1	10.8	1	32022	2	1	53	CD
JUL 10,82	JUL 9,82	830	830	1000	1200	1	4.2	1	32023	2	1	76	CD
JUL 12,82	JUL 11,82	830	830	****	****	1	15.2	1	32024	2	1	98	CD M
JUL 13,82	JUL 12,82	830	830	****	****	1	24.4	1	32025	2	1	121	NHCM
JUL 14,82	JUL 13,82	830	830	****	****	1	6.4	1	32026	2	1	95	C HM
JUL 16,82	JUL 15,82	830	830	****	****	1	3.4	1	32027	2	1	94	
JUL 24,82	JUL 23,82	830	830	930	1100	1	3.6	1	32028	2	1	95	
JUL 29,82	JUL 28,82	****	830	630	800	*	5.2	1	32029	2	1	101	C
JUL 30,82	JUL 29,82	830	830	1500	1700	1	5.2	1	32030	2	1	98	CD HM
AUG 7,82	AUG 6,82	830	830	1000	1100	1	5.2	1	32031	2	1	88	C
AUG 8,82	AUG 7,82	830	830	740	810	1	0.5	1	32032	2	1	****	E
AUG 9,82	AUG 8,82	830	830	1300	1500	1	15.2	1	32033	2	1	76	Q M
AUG 19,82	AUG 18,82	830	830	1300	1500	1	10.4	1	32034	2	1	84	H
AUG 22,82	AUG 21,82	830	830	930	2200	1	19.4	1	32035	2	1	89	C HM
AUG 23,82	AUG 22,82	830	830	1530	1800	1	5.2	1	32036	2	1	50	CQ HM
AUG 29,82	AUG 28,82	830	830	100	400	*	2.6	1	32037	2	1	106	B H
SEP 1,82	AUG 31,82	830	830	****	****	1	0.9	1	32038	2	1	171	CD N
SEP 2,82	SEP 1,82	830	830	2200	2400	1	8.5	1	32039	2	1	99	C
SEP 11,82	SEP 10,82	830	830	900	2000	1	3.5	1	32040	2	1	22	C N
SEP 12,82	SEP 11,82	830	830	100	200	1	12.8	1	32041	2	1	93	HM
SEP 13,82	SEP 12,82	830	830	2200	2400	1	18.2	1	32042	2	1	97	D HM
SEP 14,82	SEP 13,82	830	830	****	****	1	2.0	1	32043	2	1	64	
SEP 15,82	SEP 14,82	830	830	1000	1300	1	7.2	1	32044	2	1	24	NHM

ONTARIO MINISTRY OF THE ENVIRONMENT  
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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 4,82	MAY 3,82	U 424.0	8.3	*****	5.32	0.0278	1.15	0.21
MAY 10,82	MAY 9,82	U 434.0	6.4	*****	5.79	0.0294	0.85	0.20
MAY 11,82	MAY 10,82	419.0	13.4	*****	6.12	0.0432	2.05	0.39
MAY 13,82	MAY 12,82	605.0	10.2	*****	5.05	0.0452	1.20	0.12
MAY 17,82	MAY 16,82	333.0	98.0	*****	3.75	0.2408	U 11.40	U 1.21
MAY 18,82	MAY 17,82	720.0	20.6	*****	4.69	0.0540	2.15	0.34
MAY 19,82	MAY 18,82	875.0	6.5	*****	5.14	0.0380	0.40	0.08
MAY 30,82	MAY 29,82	797.0	44.1	*****	3.94	0.1144	5.80	0.21
JUN 1,82	MAY 31,82	253.0	13.7	*****	4.60	0.0348	1.15	0.13
JUN 7,82	JUN 6,82	487.0	20.7	*****	4.55	0.0472	3.85	0.31
JUN 10,82	JUN 9,82	1289.0	8.8	*****	4.96	0.0324	0.85	0.09
JUN 12,82	JUN 11,82	142.0	9.1	*****	6.04	0.0264	1.20	0.21
JUN 14,82	JUN 13,82	26.0	*****	*****	5.60	0.0288	*****	*****
JUN 21,82	JUN 20,82	42.0	*****	*****	5.12	0.0232	*****	*****
JUL 2,82	JUL 1,82	173.0	*****	*****	5.75	0.0236	<W 0.05	<W 0.01
JUL 6,82	JUL 5,82	1216.0	6.6	*****	5.67	0.0212	0.65	0.23
JUL 7,82	JUL 6,82	U 444.0	4.5	*****	5.15	0.0230	0.25	0.08
JUL 9,82	JUL 8,82	372.0	12.7	*****	6.54	0.0236	1.45	0.42
JUL 10,82	JUL 9,82	207.0	4.9	*****	5.14	0.0214	0.25	0.07
JUL 12,82	JUL 11,82	962.0	6.4	*****	4.91	0.0290	0.20	0.06
JUL 13,82	JUL 12,82	1907.0	5.6	*****	5.07	0.0264	0.20	0.05
JUL 14,82	JUL 13,82	393.0	9.5	*****	4.70	0.0428	0.50	0.15
JUL 16,82	JUL 15,82	206.0	11.8	*****	4.57	0.0408	0.65	0.22
JUL 24,82	JUL 23,82	220.0	5.1	*****	5.33	0.0178	0.45	0.16
JUL 29,82	JUL 28,82	337.0	4.6	*****	5.61	0.0188	0.35	0.11
JUL 30,82	JUL 29,82	327.0	7.2	*****	4.83	0.0372	0.40	0.14
AUG 7,82	AUG 6,82	296.0	7.7	*****	5.01	0.0294	0.80	0.24
AUG 8,82	AUG 7,82	*****	*****	*****	*****	*****	*****	*****
AUG 9,82	AUG 8,82	744.0	1.8	*****	5.42	0.0216	<T 0.05	<W 0.01
AUG 19,82	AUG 18,82	562.0	9.7	*****	5.19	0.0502	1.70	0.26
AUG 22,82	AUG 21,82	1110.0	4.6	*****	5.27	0.0314	0.50	0.12
AUG 23,82	AUG 22,82	170.0	7.6	*****	4.78	0.0366	0.65	0.07
AUG 29,82	AUG 28,82	178.0	8.5	*****	5.57	0.0426	1.25	0.36
SEP 1,82	AUG 31,82	99.0	*****	*****	5.35	0.0312	0.65	0.16
SEP 2,82	SEP 1,82	544.0	5.1	*****	5.14	0.0398	0.60	0.15
SEP 11,82	SEP 10,82	U 50.0	*****	*****	4.17	0.0940	4.50	0.28
SEP 12,82	SEP 11,82	765.0	12.6	*****	5.03	0.0472	1.95	0.37
SEP 13,82	SEP 12,82	1142.0	3.4	*****	5.17	0.0324	0.20	0.02
SEP 14,82	SEP 13,82	83.0	*****	*****	4.72	0.0398	0.55	0.10
SEP 15,82	SEP 14,82	U 114.0	*****	*****	4.73	0.0390	0.45	0.11

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLDRIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 4,82	MAY 3,82	0.21	0.02	0.025	<T	0.010	<T	0.005
MAY 10,82	MAY 9,82	0.14	0.03	0.030		0.025	0.015	0.348
MAY 11,82	MAY 10,82	0.54	0.08	0.090		0.070	0.115	0.820
MAY 13,82	MAY 12,82	0.09	0.02	0.010		0.025	0.135	0.120
MAY 17,82	MAY 16,82	0.71	U	0.28	0.115	0.115	0.200	1.040
MAY 18,82	MAY 17,82	0.17		0.09	0.020	0.040	0.140	0.326
MAY 19,82	MAY 18,82	0.02	<W	0.01	0.005	0.025	<T	0.010
MAY 30,82	MAY 29,82	0.06		0.05	0.005	0.045		0.048
JUN 1,82	MAY 31,82	0.07		0.04	0.010	0.050		0.630
JUN 7,82	JUN 6,82	0.27		0.04	0.030	0.055	0.025	0.148
JUN 10,82	JUN 9,82	0.04		0.01	0.010	<T	0.005	1.030
JUN 12,82	JUN 11,82	0.38		0.03	0.070	0.075	0.015	0.108
JUN 14,82	JUN 13,82	*****	*****	*****	*****	*****	*****	0.0072
JUN 21,82	JUN 20,82	*****	*****	*****	*****	*****	*****	0.0009
JUL 2,82	JUL 1,82	0.02	<W	0.01	<W	0.005	<W	0.005
JUL 6,82	JUL 5,82	0.27		0.08	0.040	0.070	0.075	0.190
JUL 7,82	JUL 6,82	0.02	<W	0.01	<W	0.005	<T	0.005
JUL 9,82	JUL 8,82	0.73		0.08	0.150	0.075	0.030	0.640
JUL 10,82	JUL 9,82	0.02	<T	0.01	0.005	<T	0.015	<W
JUL 12,82	JUL 11,82	0.03		0.03	0.005	<T	0.015	<W
JUL 13,82	JUL 12,82	0.04	<T	0.02	0.010	<T	0.015	<W
JUL 14,82	JUL 13,82	0.13		0.07	0.040	0.030	0.015	0.038
JUL 16,82	JUL 15,82	0.02		0.04	<W	0.005	<T	0.005
JUL 24,82	JUL 23,82	0.16		0.04	0.025	<T	0.010	<T
JUL 29,82	JUL 28,82	0.05		0.02	0.015	0.020	<T	0.005
JUL 30,82	JUL 29,82	0.02		0.04	0.010	0.095	0.015	0.210
AUG 7,82	AUG 6,82	0.06		0.05	0.085	0.050	0.030	0.0148
AUG 8,82	AUG 7,82	*****	*****	*****	*****	*****	*****	0.0098
AUG 9,82	AUG 8,82	<W	0.01	<W	0.01	<W	0.005	<T
AUG 19,82	AUG 18,82	0.14		0.04	0.040	0.070	0.015	0.600
AUG 22,82	AUG 21,82	0.08		0.04	0.030	0.020	<T	0.256
AUG 23,82	AUG 22,82	0.04		0.04	0.015	<T	0.005	0.0054
AUG 29,82	AUG 28,82	0.40		0.11	0.100	0.080	0.050	0.126
SEP 1,82	AUG 31,82	*****		0.06	*****	*****	*****	0.430
SEP 2,82	SEP 1,82	0.09		0.05	0.015	0.020	0.015	0.168
SEP 11,82	SEP 10,82	*****		0.15	*****	*****	*****	0.212
SEP 12,82	SEP 11,82	0.35		0.11	0.025	0.040	0.035	0.0676
SEP 13,82	SEP 12,82	0.02		0.04	<W	0.005	0.010	0.146
SEP 14,82	SEP 13,82	*****		0.11	*****	*****	*****	0.0093
SEP 15,82	SEP 14,82	0.04		0.08	0.005	0.010	0.015	0.460

ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : FERNBERG/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP		SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT		SUBPROJECT CODE 02-APIOS 03-SPECIAL	SAMPLER EFFICI- ENCY (%)	COMMENTS	
		START/END HR.	END/HR.	START/END HR.	HR.					CODE	CODE			FIELD	OFFICE
										01-MOE	03-AES				
SEP 16,82	SEP 15,82	830	830	2000	300	1	10.0	1	32045	2	1	29	CD	N	
SEP 18,82	SEP 17,82	830	830	1530	1700	1	2.0	1	32046	2	1	58	C		
SEP 19,82	SEP 18,82	830	830	1100	1300	1	7.6	1	32047	2	1	84	C	HCM	
SEP 26,82	SEP 25,82	830	830	****	****	1	8.0	1	32048	2	1	76	AC	H	
SEP 29,82	SEP 28,82	830	830	****	****	1	5.0	1	32049	2	1	43	CD	N	
SEP 30,82	SEP 29,82	830	830	1800	2300	1	9.0	1	32050	2	1	52	CD		
OCT 1,82	SEP 30,82	830	830	2200	200	1	12.0	1	32051	2	1	83	CD		
OCT 3,82	OCT 2,82	830	830	930	1200	1	7.5	1	32052	2	1	58	C		
OCT 6,82	OCT 5,82	830	830	2400	800	1	26.6	1	32053	2	1	101	C		
OCT 7,82	OCT 6,82	830	830	2300	800	1	27.2	1	32054	2	1	117	A		
OCT 8,82	OCT 7,82	830	830	1300	1500	1	8.2	1	32055	2	1	75	C		
OCT 9,82	OCT 8,82	830	830	****	****	1	23.0	1	32056	2	1	30	CD	N	
OCT 11,82	OCT 10,82	830	830	2400	300	1	14.8	1	32057	2	1	91			
OCT 12,82	OCT 11,82	830	830	500	800	1	4.2	1	32058	2	1	69	C		
OCT 13,82	OCT 12,82	830	830	500	600	1	2.0	1	32059	2	1	52	C		
OCT 16,82	OCT 15,82	830	830	900	1000	1	1.0	1	32060	2	1	67			
OCT 18,82	OCT 17,82	830	830	1000	1200	1	7.4	1	32062	2	1	92	C	H	
OCT 26,82	OCT 25,82	830	900	700	715	1	3.0	1	32063	2	1	****	EF		
OCT 28,82	OCT 27,82	830	830	830	1200	1	8.3	2	32064	2	1	111			
NOV 3,82	NOV 2,82	830	930	100	600	3	20.3	2	32065	2	1	105			
NOV 4,82	NOV 3,82	930	830	930	100	2	24.7	2	32066	2	1	7	CFL	NM	
NOV 11,82	NOV 10,82	830	830	1000	1200	2	14.1	2	32067	2	1	****	CDGH	NH	
NOV 12,82	NOV 11,82	830	830	100	800	2	11.1	2	32068	2	1	****	GH	N	
NOV 20,82	NOV 19,82	830	830	1100	2000	1	23.1	2	32069	2	1	91			
NOV 22,82	NOV 21,82	830	830	500	700	2	1.5	2	32070	2	1	88			
DEC 15,82	DEC 14,82	830	830	1900	2400	2	10.1	2	32071	2	1	34	C	N	
DEC 22,82	DEC 21,82	830	830	1200	200	2	9.1	2	32072	2	1	11	C	N	
DEC 28,82	DEC 27,82	830	830	630	1200	2	13.5	2	32073	2	1	26	C	N	

ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : FERNBERG/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 16,82	SEP 15,82	U 192.0	5.6	*****	4.83	0.0326	0.45	0.11
SEP 18,82	SEP 17,82	75.0	*****	*****	4.93	0.0340	0.55	0.01
SEP 19,82	SEP 18,82	410.0	2.8	*****	5.34	0.0306	0.30	0.02
SEP 26,82	SEP 25,82	390.0	11.8	*****	5.36	0.0330	1.85	0.39
SEP 29,82	SEP 28,82	U 140.0	*****	*****	4.94	0.0370	1.50	0.17
SEP 30,82	SEP 29,82	301.0	9.4	*****	4.93	0.0442	1.50	0.16
OCT 1,82	SEP 30,82	639.0	9.6	*****	4.97	0.0458	1.50	0.15
OCT 3,82	OCT 2,82	281.0	9.6	*****	4.93	0.0416	1.40	0.16
OCT 6,82	OCT 5,82	1732.0	7.8	*****	4.74	0.0468	0.75	0.10
OCT 7,82	OCT 6,82	2052.0	11.8	*****	4.58	0.0626	1.40	0.11
OCT 8,82	OCT 7,82	397.0	6.0	*****	4.78	0.0394	0.50	0.06
OCT 9,82	OCT 8,82	U 447.0	6.0	*****	4.81	0.0390	0.50	0.05
OCT 11,82	OCT 10,82	870.0	6.6	*****	4.86	0.0508	0.60	0.09
OCT 12,82	OCT 11,82	186.0	*****	*****	5.03	0.0334	0.40	0.06
OCT 13,82	OCT 12,82	67.0	*****	*****	5.77	0.0280	0.50	0.04
OCT 16,82	OCT 15,82	43.0	*****	*****	5.50	0.0284	1.15	0.26
OCT 18,82	OCT 17,82	441.0	7.4	*****	5.47	0.0358	1.00	0.23
OCT 26,82	OCT 25,82	*****	*****	*****	*****	*****	*****	*****
OCT 28,82	OCT 27,82	591.0	11.6	*****	4.68	0.0578	1.10	0.18
NOV 3,82	NOV 2,82	1374.0	4.6	*****	5.16	0.0264	0.40	0.06
NOV 4,82	NOV 3,82	U 111.0	*****	*****	5.13	0.0260	0.25	0.03
NOV 11,82	NOV 10,82	U 128.0	*****	*****	5.02	0.0310	0.35	0.07
NOV 12,82	NOV 11,82	U 43.0	*****	*****	4.95	0.0208	0.20	0.05
NOV 20,82	NOV 19,82	1355.0	12.4	*****	4.57	0.0522	1.10	0.18
NOV 22,82	NOV 21,82	85.0	*****	*****	4.91	0.0286	0.25	0.14
DEC 15,82	DEC 14,82	U 224.0	13.0	*****	4.68	0.0450	0.80	0.41
DEC 22,82	DEC 21,82	U 65.0	*****	*****	4.94	0.0312	0.25	0.21
DEC 28,82	DEC 27,82	U 231.0	14.0	*****	4.52	0.0514	1.05	0.24

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ONTARIO MINISTRY OF THE ENVIRONMENT  
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STATION NAME : FERNBERG/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 16,82	SEP 15,82	0.02	0.05	<W 0.005	0.025	0.015	0.106	0.0148
SEP 18,82	SEP 17,82	*****	0.08	*****	*****	0.480	0.0117	
SEP 19,82	SEP 18,82	0.08	0.12	0.015	0.070	0.075	0.320	0.0046
SEP 26,82	SEP 25,82	0.43	0.11	0.045	0.080	0.035	0.690	0.0044
SEP 29,82	SEP 28,82	0.29	0.07	0.040	0.060	0.030	0.250	0.0115
SEP 30,82	SEP 29,82	0.29	0.08	0.040	0.050	0.030	0.278	0.0117
OCT 1,82	SEP 30,82	0.27	0.09	0.040	0.050	0.040	0.264	0.0107
OCT 3,82	OCT 2,82	0.26	0.08	0.040	0.050	0.030	0.254	0.0117
OCT 6,82	OCT 5,82	0.03	0.04	<W 0.005	0.020	0.015	0.094	0.0182
OCT 7,82	OCT 6,82	0.02	0.04	<W 0.005	0.015	0.015	0.210	0.0263
OCT 8,82	OCT 7,82	<T 0.01	0.04	<W 0.005	0.010	0.010	0.038	0.0166
OCT 9,82	OCT 8,82	<T 0.01	0.03	<W 0.005	<W 0.005	<T 0.005	0.042	0.0155
OCT 11,82	OCT 10,82	0.02	0.05	<W 0.005	0.020	0.010	0.132	0.0138
OCT 12,82	OCT 11,82	0.02	0.13	<W 0.005	0.090	0.055	0.084	0.0093
OCT 13,82	OCT 12,82	*****	0.25	*****	*****	*****	*****	0.0017
OCT 16,82	OCT 15,82	*****	0.09	*****	*****	*****	*****	0.0032
OCT 18,82	OCT 17,82	0.25	0.06	0.025	0.030	0.020	0.420	0.0034
OCT 26,82	OCT 25,82	*****	*****	*****	*****	*****	*****	*****
OCT 28,82	OCT 27,82	0.07	0.05	0.005	0.015	0.020	0.244	0.0209
NOV 3,82	NOV 2,82	0.05	0.04	<W 0.005	0.015	0.020	0.080	0.0069
NOV 4,82	NOV 3,82	0.03	0.04	<W 0.005	0.010	0.040	0.032	0.0074
NOV 11,82	NOV 10,82	0.04	0.19	<W 0.005	0.020	U 0.215	0.038	0.0095
NOV 12,82	NOV 11,82	*****	0.04	*****	*****	*****	*****	0.0112
NOV 20,82	NOV 19,82	0.04	0.05	<W 0.005	0.010	0.010	0.164	0.0269
NOV 22,82	NOV 21,82	*****	0.09	*****	*****	*****	0.012	0.0123
DEC 15,82	DEC 14,82	0.17	0.10	0.020	0.030	0.020	0.260	0.0209
DEC 22,82	DEC 21,82	0.18	0.17	0.015	0.035	0.075	*****	0.0115
DEC 28,82	DEC 27,82	0.03	0.09	0.005	<T 0.010	<T 0.010	0.150	0.0302

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER
JAN 3,82	JAN 2,82	830 830	830 100	2	7.3	2	33544	2	1	70	C	
JAN 6,82	JAN 5,82	830 900	830 1900	2	2.1	2	33545	2	1	70	CD	
JAN 11,82	JAN 9,82	900 900	830 1800	2	4.9	2	33546	2	1	40	CDF	
JAN 19,82	JAN 18,82	830 900	2300 900	2	3.3	2	33547	2	1	93	CD	
JAN 22,82	JAN 21,82	900 900	900 1100	2	0.5	2	33548	2	1	51	CQ	
JAN 23,82	JAN 22,82	900 930	1300 100	2	18.0	2	33549	2	1	39	C	
JAN 24,82	JAN 23,82	930 900	1100 1500	2	1.5	2	33550	2	1	30	CD	
JAN 30,82	JAN 29,82	900 900	1000 1600	2	1.3	2	33551	2	1	****	CDG	
FEB 2,82	FEB 1,82	830 930	1930 930	2	1.4	2	33552	2	1	101	CD	
FEB 15,82	FEB 14,82	830 830	1000 1400	2	****	*	33553	2	1	****	CD	
FEB 19,82	FEB 18,82	830 830	**** ****	2	0.3	2	33554	2	1	40	C	
FEB 21,82	FEB 20,82	830 830	1330 1600	2	0.2	2	33555	2	1	91	CD	
FEB 23,82	FEB 22,82	830 900	1100 1930	2	5.5	2	33556	2	1	34	C	
MAR 1,82	FEB 28,82	900 830	1000 1600	2	3.4	2	33557	2	1	68	C	
MAR 10,82	MAR 9,82	830 730	2030 ****	2	****	*	33558	2	1	****		
MAR 11,82	MAR 10,82	730 830	1400 2100	2	12.0	2	33559	2	1	83	C	
MAR 13,82	MAR 12,82	830 830	1600 830	3	12.0	2	33560	2	1	88	CD	
MAR 16,82	MAR 15,82	830 845	**** ****	2	0.7	2	33561	2	1	65	CD	
MAR 18,82	MAR 17,82	830 830	**** ****	2	3.7	2	33562	2	1	97	CD	
MAR 24,82	MAR 23,82	830 830	**** 830	2	3.5	2	33563	2	1	102	CD	
MAR 25,82	MAR 24,82	830 830	830 830	2	12.9	2	33564	2	1	81	CD	
MAR 26,82	MAR 25,82	830 830	830 1300	2	0.7	2	33565	2	1	38	C	
MAR 30,82	MAR 29,82	830 830	**** 830	3	5.2	2	33566	2	1	103	D	
MAR 31,82	MAR 30,82	830 730	830 730	1	9.1	2	33567	2	1	124	D	
APR 3,82	APR 2,82	800 830	1330 830	3	19.9	2	33568	2	1	70	C	
APR 4,82	APR 3,82	830 800	830 ****	2	12.8	2	33569	2	1	52	C	
APR 11,82	APR 10,82	800 800	1200 1600	2	1.6	2	33570	2	1	94	C	
APR 13,82	APR 12,82	900 730	900 1730	3	4.5	2	33571	2	1	107	C	
APR 15,82	APR 14,82	700 700	**** 630	1	7.1	2	33572	2	1	98	C	
APR 16,82	APR 15,82	700 730	830 1200	1	0.5	2	33573	2	1	179	C	
APR 17,82	APR 16,82	730 730	**** 730	2	1.2	2	33574	2	1	73	CD	

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 3,82	JAN 2,82	842.0	7.2	*****	4.76	0.0460	0.30	0.17
JAN 6,82	JAN 5,82	244.0	14.9	*****	4.43	0.0664	0.95	0.37
JAN 11,82	JAN 9,82	U 323.0	4.5	*****	5.46	*****	0.50	0.05
JAN 19,82	JAN 18,82	506.0	12.4	*****	4.52	0.0678	0.30	0.35
JAN 22,82	JAN 21,82	42.0	*****	*****	4.70	*****	0.50	0.16
JAN 23,82	JAN 22,82	U 1151.0	3.5	*****	5.07	0.0416	0.20	0.04
JAN 24,82	JAN 23,82	U 75.0	*****	*****	4.31	*****	0.65	0.61
JAN 30,82	JAN 29,82	303.0	9.2	*****	4.63	0.0534	0.40	0.22
FEB 2,82	FEB 1,82	234.0	10.0	*****	4.59	0.0536	0.25	0.26
FEB 15,82	FEB 14,82	106.0	*****	*****	3.95	*****	6.80	1.12
FEB 19,82	FEB 18,82	U 20.0	*****	*****	4.07	*****	*****	*****
FEB 21,82	FEB 20,82	30.0	*****	*****	4.20	*****	*****	*****
FEB 23,82	FEB 22,82	U 312.0	11.7	*****	4.65	0.0582	1.05	0.19
MAR 1,82	FEB 28,82	384.0	28.7	*****	4.29	0.1018	1.50	0.85
MAR 10,82	MAR 9,82	26.0	*****	*****	4.45	0.0672	*****	*****
MAR 11,82	MAR 10,82	1637.0	5.7	*****	5.00	0.0336	0.20	0.10
MAR 13,82	MAR 12,82	1743.0	17.7	*****	4.42	0.0622	1.65	0.14
MAR 16,82	MAR 15,82	75.0	*****	*****	4.43	0.0672	2.20	0.47
MAR 18,82	MAR 17,82	589.0	9.5	*****	4.70	0.0454	0.70	0.18
MAR 24,82	MAR 23,82	588.0	*****	*****	4.71	0.0430	0.85	0.28
MAR 25,82	MAR 24,82	1720.0	17.5	*****	4.48	0.0606	1.95	<W 0.01
MAR 26,82	MAR 25,82	U 44.0	*****	*****	4.62	0.0502	1.75	0.04
MAR 30,82	MAR 29,82	886.0	40.0	*****	4.20	0.0940	4.30	0.89
MAR 31,82	MAR 30,82	1859.0	27.5	*****	4.47	0.0672	2.95	0.49
APR 3,82	APR 2,82	2288.0	15.8	*****	4.66	0.0500	1.50	0.23
APR 4,82	APR 3,82	1092.0	5.1	*****	5.24	0.0284	0.30	0.06
APR 11,82	APR 10,82	249.0	37.3	*****	4.29	0.0928	5.45	0.66
APR 13,82	APR 12,82	794.0	21.5	*****	4.72	0.0532	2.95	0.48
APR 15,82	APR 14,82	1150.0	28.0	*****	U 6.71	U 0.0348	4.80	0.70
APR 16,82	APR 15,82	147.0	U 58.0	*****	U 6.80	U 0.0332	U 10.00	U 2.10
APR 17,82	APR 16,82	144.0	19.8	*****	5.00	0.0366	2.85	0.50

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 3,82	JAN 2,82	0.04	0.02	<T	0.005	0.020	<T	0.010
JAN 6,82	JAN 5,82	0.36	0.28		0.030	0.050		0.096
JAN 11,82	JAN 9,82	0.31	0.12		0.025	0.110	0.080	<T 0.002
JAN 19,82	JAN 18,82	0.10	0.08		0.005	0.020	0.030	0.014
JAN 22,82	JAN 21,82	*****	0.13	*****	*****	*****	*****	0.0200
JAN 23,82	JAN 22,82	0.04	<T	0.01	<T 0.005	0.010	0.010	<T 0.002
JAN 24,82	JAN 23,82	*****		0.14	*****	*****	*****	<T 0.010
JAN 30,82	JAN 29,82	0.07	0.13	<T	0.005	0.010	0.030	0.010
FEB 2,82	FEB 1,82	0.02	0.08	<T	0.005	<T 0.010	0.010	0.032
FEB 15,82	FEB 14,82	0.63	0.40		0.010	0.080	0.235	1.000
FEB 19,82	FEB 18,82	*****	*****	*****	*****	*****	*****	0.0951
FEB 21,82	FEB 20,82	*****	*****	*****	*****	*****	*****	0.0631
FEB 23,82	FEB 22,82	0.05	0.08	<T	0.005	<T 0.005	0.025	0.236
MAR 1,82	FEB 28,82	0.27	0.25		0.035	0.035	0.075	0.382
MAR 10,82	MAR 9,82	*****	*****	*****	*****	*****	*****	0.0513
MAR 11,82	MAR 10,82	0.03	0.02	<T	0.005	<T 0.005	0.010	0.064
MAR 13,82	MAR 12,82	0.05	0.04	<T	0.005	<T 0.005	0.025	0.194
MAR 16,82	MAR 15,82	*****	0.48	*****	*****	*****	*****	0.006
MAR 18,82	MAR 17,82	0.03	0.03	<T	0.005	<T 0.005	0.020	U 0.170
MAR 24,82	MAR 23,82	*****	0.08	*****	*****	*****	*****	0.0200
MAR 25,82	MAR 24,82	0.03	<W	0.01	<T 0.005	0.015	0.020	0.0195
MAR 26,82	MAR 25,82	*****	0.15	*****	*****	*****	*****	0.0331
MAR 30,82	MAR 29,82	0.59	0.18		0.080	0.050	0.150	0.630
MAR 31,82	MAR 30,82	0.19	0.13		0.015	0.045	0.065	0.600
APR 3,82	APR 2,82	0.18	0.04		0.055	<T 0.015	0.030	0.128
APR 4,82	APR 3,82	0.05	0.08	<W	0.005	<T 0.015	<T 0.010	<W 0.002
APR 11,82	APR 10,82	0.18	0.10		0.035	0.030	0.105	1.180
APR 13,82	APR 12,82	0.37	0.10		0.035	0.025	0.030	0.790
APR 15,82	APR 14,82	U 1.00	0.10	U	0.090	0.070	0.035	2.050
APR 16,82	APR 15,82	U 2.14	0.31	U	0.195	0.285	U 0.145	U 4.050
APR 17,82	APR 16,82	0.47	0.24		0.075	0.055	0.235	0.670

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS		
											01-RAIN	01-STD.	02-APIOS
02-SNOW												02-NIPHER	
03-COMP/04-ICE													
MAY 4,82	MAY 3,82	955 955	**** ****	1	2.5	1	33575	2	1	101	CD		
MAY 5,82	MAY 4,82	955 1030	955 930	1	4.3	1	33576	2	1	108	C	H	
MAY 6,82	MAY 5,82	1030 925	**** ****	1	2.1	1	33577	2	1	107	CD	H	
MAY 7,82	MAY 6,82	925 945	**** ****	1	2.4	1	33578	2	1	97	D	C	
MAY 10,82	MAY 9,82	945 945	**** ****	1	11.0	1	33579	2	1	101	C		
MAY 11,82	MAY 10,82	945 935	**** ****	1	15.4	1	33580	2	1	104	C		
MAY 19,82	MAY 18,82	1000 830	1630 200	1	3.0	1	33581	2	1	89	C	C	
MAY 30,82	MAY 29,82	900 900	2000 300	1	1.6	1	33582	2	1	85	CD	T	
MAY 31,82	MAY 30,82	900 900	200 900	1	0.4	1	33583	2	1	97	D		
JUN 1,82	MAY 31,82	900 900	1900 200	1	1.0	1	33584	2	1	84	C		
JUN 2,82	JUN 1,82	900 900	1100 2400	1	2.4	1	33585	2	1	92	C		
JUN 8,82	JUN 7,82	830 830	1000 1100	1	2.8	1	33586	2	1	94			
JUN 10,82	JUN 9,82	830 730	1500 730	1	17.2	1	33587	2	1	106			
JUN 11,82	JUN 10,82	730 700	730 1300	1	3.3	1	33588	2	1	90	C	C	
JUN 12,82	JUN 11,82	700 700	900 1300	1	0.6	1	33589	2	1	119	C		
JUN 14,82	JUN 13,82	730 730	200 730	1	17.2	1	33590	2	1	101	D	HM	
JUN 15,82	JUN 14,82	730 800	200 800	1	3.0	1	33591	2	1	99	C		
JUN 16,82	JUN 15,82	800 800	800 1100	1	0.7	1	33592	2	1	80			
JUN 17,82	JUN 16,82	800 800	2100 800	1	7.5	1	33593	2	1	105	C	C	
JUN 20,82	JUN 19,82	730 730	1300 1600	1	1.0	1	33594	2	1	49	C	N	
JUN 21,82	JUN 20,82	730 800	1800 200	1	3.6	1	33595	2	1	96	C	C	
JUN 22,82	JUN 21,82	800 800	1100 1700	1	4.8	1	33596	2	1	95	C	M	
JUN 24,82	JUN 23,82	830 830	2400 800	1	9.5	1	33597	2	1	102	D	HM	
JUN 25,82	JUN 24,82	830 830	1615 1715	1	2.2	1	33598	2	1	98	D		
JUN 28,82	JUN 27,82	800 800	830 1000	1	2.0	1	33599	2	1	98	CD		
JUL 3,82	JUL 2,82	800 800	2400 800	1	13.1	1	33600	2	1	99	D		
JUL 4,82	JUL 3,82	800 800	800 2400	1	10.0	1	33601	2	1	100	D		
JUL 5,82	JUL 4,82	800 830	2400 730	1	3.9	1	33602	2	1	101	D		
JUL 6,82	JUL 5,82	830 800	1845 800	1	83.0	1	33603	2	1	****	DG	C	
JUL 7,82	JUL 6,82	800 800	2300 600	1	26.4	1	33604	2	1	102	D		
JUL 10,82	JUL 9,82	800 800	1400 1800	1	1.6	1	33605	2	1	106	D		
JUL 13,82	JUL 12,82	800 800	1800 1845	1	20.4	1	33606	2	1	111	CD	CM	
JUL 14,82	JUL 13,82	800 800	2230 2430	1	11.6	1	33607	2	1	103	CD	CM	
JUL 16,82	JUL 15,82	1000 1000	2430 1000	1	0.4	1	33608	2	1	74	D		
JUL 17,82	JUL 16,82	1000 900	2430 800	1	9.4	1	33609	2	1	104	CD		
JUL 22,82	JUL 21,82	800 800	915 1200	1	2.4	1	33610	2	1	92	C		
JUL 27,82	JUL 26,82	800 800	1930 1950	1	0.8	1	33611	2	1	74			
JUL 28,82	JUL 27,82	800 800	1500 1530	1	2.4	1	33612	2	1	101	CD	M	
JUL 30,82	JUL 29,82	830 830	1250 200	1	2.3	1	33613	2	1	108	Q	HC	
AUG 3,82	AUG 2,82	830 830	1600 730	1	41.0	1	33614	2	1	97	C	HM	

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/AEROCHM

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 4,82	MAY 3,82	163.0	U 60.0	*****	U 7.18	0.0474	U 8.60	U 1.62
MAY 5,82	MAY 4,82	300.0	17.1	*****	4.76	0.0506	2.50	0.41
MAY 6,82	MAY 5,82	145.0	6.2	*****	5.39	0.0432	0.70	0.20
MAY 7,82	MAY 6,82	150.0	4.0	*****	5.98	0.0272	0.35	0.11
MAY 10,82	MAY 9,82	714.0	15.9	*****	4.60	0.0660	1.90	0.27
MAY 11,82	MAY 10,82	1035.0	19.1	*****	4.90	0.0702	3.20	0.49
MAY 19,82	MAY 18,82	173.0	8.6	*****	5.27	0.0370	1.10	0.10
MAY 30,82	MAY 29,82	88.0	U 89.0	*****	3.64	0.2244	U 11.95	0.83
MAY 31,82	MAY 30,82	25.0	*****	*****	5.84	0.0230	*****	*****
JUN 1,82	MAY 31,82	54.0	*****	*****	4.56	0.0376	0.95	0.11
JUN 2,82	JUN 1,82	142.0	14.7	*****	6.09	0.0182	0.10	<W 0.01
JUN 8,82	JUN 7,82	170.0	20.1	*****	4.43	0.0582	3.25	0.25
JUN 10,82	JUN 9,82	1176.0	10.4	*****	4.70	0.0328	1.10	0.12
JUN 11,82	JUN 10,82	191.0	3.5	*****	5.89	0.0170	0.30	0.07
JUN 12,82	JUN 11,82	46.0	*****	*****	5.64	0.0198	0.75	0.09
JUN 14,82	JUN 13,82	1124.0	4.3	*****	5.13	0.0276	0.30	0.04
JUN 15,82	JUN 14,82	192.0	8.6	*****	4.77	0.0900	0.75	0.06
JUN 16,82	JUN 15,82	36.0	*****	*****	5.60	0.0292	*****	*****
JUN 17,82	JUN 16,82	505.0	8.5	*****	4.65	0.0516	1.35	0.19
JUN 20,82	JUN 19,82	U 32.0	*****	*****	4.79	0.0466	*****	*****
JUN 21,82	JUN 20,82	222.0	4.6	*****	5.19	0.0328	0.25	0.04
JUN 22,82	JUN 21,82	295.0	2.0	*****	5.41	0.0300	<W 0.05	<W 0.01
JUN 24,82	JUN 23,82	626.0	20.6	*****	U 6.43	0.0450	2.20	0.66
JUN 25,82	JUN 24,82	139.0	*****	*****	4.99	0.0286	0.45	0.07
JUN 28,82	JUN 27,82	126.0	*****	*****	5.54	0.0290	0.30	0.10
JUL 3,82	JUL 2,82	839.0	10.5	*****	5.01	0.0302	1.05	0.19
JUL 4,82	JUL 3,82	645.0	14.6	*****	4.57	0.0616	1.40	0.09
JUL 5,82	JUL 4,82	253.0	8.6	*****	6.23	0.0204	1.00	0.34
JUL 6,82	JUL 5,82	5599.0	5.9	*****	5.84	0.0176	0.60	0.13
JUL 7,82	JUL 6,82	1727.0	5.6	*****	5.09	0.0244	0.35	0.08
JUL 10,82	JUL 9,82	109.0	*****	*****	4.88	0.0278	0.50	0.21
JUL 13,82	JUL 12,82	1458.0	9.9	*****	4.90	0.0342	0.40	0.04
JUL 14,82	JUL 13,82	773.0	11.5	*****	4.77	0.0378	0.50	0.06
JUL 16,82	JUL 15,82	19.0	*****	*****	4.12	0.1062	*****	*****
JUL 17,82	JUL 16,82	629.0	16.6	*****	4.95	0.0370	1.60	0.40
JUL 22,82	JUL 21,82	142.0	9.4	*****	4.93	0.0354	0.85	0.26
JUL 27,82	JUL 26,82	38.0	*****	*****	*****	*****	0.50	0.05
JUL 28,82	JUL 27,82	156.0	10.1	*****	4.53	0.0484	0.60	0.07
JUL 30,82	JUL 29,82	160.0	15.4	*****	5.53	0.0324	1.40	0.49
AUG 3,82	AUG 2,82	2561.0	11.7	*****	6.15	0.0354	1.30	0.31

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 4,82	MAY 3,82	U 3.66	0.21	U 0.700	0.260	0.170	U 3.750	U 0.0001
MAY 5,82	MAY 4,82	0.43	<W 0.01	0.050	0.050	0.060	0.680	0.0174
MAY 6,82	MAY 5,82	0.35	<W 0.01	0.055	0.040	0.045	0.162	0.0041
MAY 7,82	MAY 6,82	0.21	<W 0.01	0.040	0.020	0.020	0.104	0.0010
MAY 10,82	MAY 9,82	0.15	<W 0.01	0.020	0.020	<T 0.010	0.390	0.0251
MAY 11,82	MAY 10,82	0.63	0.04	0.095	0.100	0.110	0.670	0.0126
MAY 19,82	MAY 18,82	0.10	0.03	0.015	0.065	0.035	0.206	0.0054
MAY 30,82	MAY 29,82	*****	0.17	*****	*****	*****	*****	0.2291
MAY 31,82	MAY 30,82	*****	*****	*****	*****	*****	*****	0.0014
JUN 1,82	MAY 31,82	*****	0.04	*****	*****	*****	*****	0.0275
JUN 2,82	JUN 1,82	0.08	0.02	0.020	0.175	0.015	*****	0.0008
JUN 8,82	JUN 7,82	0.16	0.04	0.025	0.040	0.030	0.730	0.0372
JUN 10,82	JUN 9,82	0.09	0.04	0.010	<T 0.010	0.065	0.102	0.0200
JUN 11,82	JUN 10,82	0.16	0.02	0.035	0.030	0.015	0.104	0.0013
JUN 12,82	JUN 11,82	*****	0.04	*****	*****	*****	*****	0.0023
JUN 14,82	JUN 13,82	0.03	0.01	<W 0.005	<W 0.005	<T 0.005	0.084	0.0074
JUN 15,82	JUN 14,82	0.03	0.02	<W 0.005	<T 0.010	0.015	0.042	0.0170
JUN 16,82	JUN 15,82	*****	*****	*****	*****	*****	*****	0.0025
JUN 17,82	JUN 16,82	0.11	0.04	0.020	0.080	0.015	0.258	0.0224
JUN 20,82	JUN 19,82	*****	*****	*****	*****	*****	*****	0.0162
JUN 21,82	JUN 20,82	0.02	0.01	<W 0.005	<T 0.005	0.015	<T 0.004	0.0065
JUN 22,82	JUN 21,82	<W 0.01	<W 0.01	<W 0.005	<W 0.005	<T 0.010	<W 0.002	0.0039
JUN 24,82	JUN 23,82	U 1.03	0.10	0.210	0.065	0.075	1.280	U 0.0004
JUN 25,82	JUN 24,82	0.03	0.03	0.010	<T 0.010	<T 0.005	0.076	0.0102
JUN 28,82	JUN 27,82	0.10	<W 0.01	0.015	<T 0.015	<W 0.005	0.094	0.0029
JUL 3,82	JUL 2,82	0.20	0.03	0.040	<T 0.010	<T 0.005	0.232	0.0098
JUL 4,82	JUL 3,82	0.03	<T 0.02	<W 0.005	<T 0.010	<W 0.005	0.144	0.0269
JUL 5,82	JUL 4,82	0.35	0.08	0.055	<T 0.015	0.035	0.470	0.0006
JUL 6,82	JUL 5,82	0.17	0.04	0.035	0.020	0.045	0.208	0.0014
JUL 7,82	JUL 6,82	0.02	<W 0.01	<W 0.005	<T 0.005	<W 0.005	0.066	0.0081
JUL 10,82	JUL 9,82	*****	0.11	*****	*****	*****	0.042	0.0132
JUL 13,82	JUL 12,82	0.03	0.03	<W 0.005	<T 0.010	0.060	0.026	0.0126
JUL 14,82	JUL 13,82	0.03	<T 0.02	0.010	<T 0.010	0.045	0.042	0.0170
JUL 16,82	JUL 15,82	*****	*****	*****	*****	*****	*****	0.0759
JUL 17,82	JUL 16,82	0.31	0.09	0.035	0.020	0.060	0.510	0.0112
JUL 22,82	JUL 21,82	0.14	0.07	0.025	0.075	0.015	0.294	0.0117
JUL 27,82	JUL 26,82	*****	0.08	*****	*****	*****	*****	*****
JUL 28,82	JUL 27,82	0.02	0.06	0.005	<T 0.010	0.035	<W 0.002	0.0295
JUL 30,82	JUL 29,82	0.20	0.11	0.045	0.130	0.025	0.770	0.0030
AUG 3,82	AUG 2,82	0.39	0.05	0.085	0.070	0.040	0.750	0.0007

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/AEROCHEM

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											FIELD OFFICE	
AUG 4,82	AUG 3,82	830 830	1100 300	1	0.4	1	33615	2	1	****	E	
AUG 5,82	AUG 4,82	830 830	300 830	1	0.2	1	33616	2	1	****	E	
AUG 6,82	AUG 5,82	830 830	830 1100	1	0.2	1	33617	2	1	****	E	
AUG 7,82	AUG 6,82	830 830	1500 1830	1	0.6	1	33618	2	1	49		N
AUG 8,82	AUG 7,82	830 830	1300 1345	1	0.7	1	33619	2	1	****	E	
AUG 9,82	AUG 8,82	830 900	1200 200	1	5.8	1	33620	2	1	102	C	M
AUG 14,82	AUG 13,82	800 800	200 800	1	0.3	1	33621	2	1	****	E	
AUG 19,82	AUG 18,82	830 830	2100 200	1	37.4	1	33622	2	1	106		
AUG 22,82	AUG 21,82	830 830	1830 200	1	9.4	1	33623	2	1	102		H
AUG 23,82	AUG 22,82	830 830	2305 300	1	3.8	1	33624	2	1	102		HM
AUG 25,82	AUG 24,82	830 830	1700 1900	1	0.2	1	33625	2	1	****	E	
AUG 26,82	AUG 25,82	830 830	1100 1300	1	1.3	1	33626	2	1	78	C	
AUG 28,82	AUG 27,82	830 830	300 600	1	0.4	1	33627	2	1	****	E	
AUG 29,82	AUG 28,82	830 830	300 730	1	9.0	1	33628	2	1	101	C	HM
AUG 30,82	AUG 29,82	830 830	300 830	1	0.8	1	33629	2	1	105		
AUG 31,82	AUG 30,82	830 830	300 830	1	0.2	1	33630	2	1	7	E	N
SEP 1,82	AUG 31,82	830 830	1500 1900	1	6.8	1	33631	2	1	97		HM
SEP 2,82	SEP 1,82	830 830	40 830	1	5.2	1	33632	2	1	101		HM
SEP 8,82	SEP 7,82	830 830	930 830	1	0.2	1	33633	2	1	7	E	N
SEP 10,82	SEP 9,82	830 830	300 830	1	0.2	1	33634	2	1	7	E	N
SEP 11,82	SEP 10,82	830 830	1800 830	1	0.8	1	33635	2	1	60	AQ	
SEP 12,82	SEP 11,82	830 830	300 815	1	11.2	1	33636	2	1	102		
SEP 13,82	SEP 12,82	830 830	2200 700	1	12.4	1	33637	2	1	103		
SEP 15,82	SEP 14,82	830 830	900 1030	1	0.4	1	33638	2	1	3	E	N
SEP 17,82	SEP 16,82	830 800	200 800	1	7.6	1	33639	2	1	103		
SEP 18,82	SEP 17,82	800 800	1600 1645	1	1.2	1	33640	2	1	89	C	
SEP 19,82	SEP 18,82	800 800	200 600	1	0.3	1	33641	2	1	****	E	
SEP 20,82	SEP 19,82	800 800	1500 1800	1	1.1	1	33642	2	1	77	C	
SEP 24,82	SEP 23,82	830 830	1320 1800	1	5.0	1	33643	2	1	97	C	H
SEP 28,82	SEP 27,82	845 845	2100 845	1	5.6	1	33644	2	1	94	CD	
SEP 29,82	SEP 28,82	845 845	845 1700	1	6.5	1	33645	2	1	99	AC	
SEP 30,82	SEP 29,82	845 830	1530 1730	1	1.2	1	33646	2	1	96	C	
OCT 2,82	OCT 1,82	830 830	200 830	1	2.2	1	33647	2	1	89	D	
OCT 3,82	OCT 2,82	830 830	830 1400	1	9.4	1	33648	2	1	97	D	
OCT 6,82	OCT 4,82	830 845	**** ****	1	9.0	1	33649	2	1	77		
OCT 7,82	OCT 6,82	845 830	845 830	1	36.4	1	33650	2	1	96		
OCT 8,82	OCT 7,82	830 800	845 200	1	2.0	1	33651	2	1	85		
OCT 9,82	OCT 8,82	800 845	2200 800	1	0.4	1	33652	2	1	****	E	
OCT 10,82	OCT 9,82	845 845	1900 845	1	16.2	1	33653	2	1	95		
OCT 11,82	OCT 10,82	845 830	845 830	1	8.2	1	33654	2	1	98	C	

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
AUG 4,82	AUG 3,82	*****	*****	*****	*****	*****	*****	*****
AUG 5,82	AUG 4,82	*****	*****	*****	*****	*****	*****	*****
AUG 6,82	AUG 5,82	*****	*****	*****	*****	*****	*****	*****
AUG 7,82	AUG 6,82	U 19.0	*****	*****	4.50	0.0666	*****	*****
AUG 8,82	AUG 7,82	*****	*****	*****	*****	*****	*****	*****
AUG 9,82	AUG 8,82	381.0	1.8	*****	5.54	0.0210	<T 0.05	<W 0.01
AUG 14,82	AUG 13,82	*****	*****	*****	*****	*****	*****	*****
AUG 19,82	AUG 18,82	2546.0	14.9	*****	4.70	0.0584	2.65	0.22
AUG 22,82	AUG 21,82	616.0	6.4	*****	5.21	0.0498	0.75	0.18
AUG 23,82	AUG 22,82	250.0	3.7	*****	4.99	0.0388	0.15	0.03
AUG 25,82	AUG 24,82	*****	*****	*****	*****	*****	*****	*****
AUG 26,82	AUG 25,82	65.0	*****	*****	5.61	0.0280	0.40	0.07
AUG 28,82	AUG 27,82	*****	*****	*****	*****	*****	*****	*****
AUG 29,82	AUG 28,82	586.0	3.2	*****	5.20	0.0376	0.15	0.06
AUG 30,82	AUG 29,82	54.0	*****	*****	5.65	0.0332	0.80	0.14
AUG 31,82	AUG 30,82	U 1.0	*****	*****	*****	*****	*****	*****
SEP 1,82	AUG 31,82	423.0	8.7	*****	4.73	0.0574	0.80	0.12
SEP 2,82	SEP 1,82	339.0	3.9	*****	5.09	0.0350	0.25	0.06
SEP 8,82	SEP 7,82	U 1.0	*****	*****	*****	*****	*****	*****
SEP 10,82	SEP 9,82	U 1.0	*****	*****	*****	*****	*****	*****
SEP 11,82	SEP 10,82	31.0	*****	*****	3.58	0.3760	U 10.00	U 1.19
SEP 12,82	SEP 11,82	735.0	12.9	*****	4.75	0.0590	2.05	0.28
SEP 13,82	SEP 12,82	820.0	8.2	*****	4.84	0.0554	0.95	0.16
SEP 15,82	SEP 14,82	U 1.0	*****	*****	*****	*****	*****	*****
SEP 17,82	SEP 16,82	504.0	6.8	*****	4.84	0.0364	0.40	0.09
SEP 18,82	SEP 17,82	69.0	*****	*****	4.95	0.0318	0.25	0.04
SEP 19,82	SEP 18,82	*****	*****	*****	*****	*****	*****	*****
SEP 20,82	SEP 19,82	55.0	*****	*****	4.98	0.0284	0.30	0.03
SEP 24,82	SEP 23,82	314.0	11.9	*****	5.00	0.0382	1.65	0.37
SEP 28,82	SEP 27,82	340.0	25.2	*****	4.38	0.0806	3.15	0.59
SEP 29,82	SEP 28,82	415.0	U 40.8	*****	4.37	U 0.0822	U 7.90	0.91
SEP 30,82	SEP 29,82	74.0	*****	*****	6.70	U 0.0328	3.80	0.64
OCT 2,82	OCT 1,82	126.0	*****	*****	4.36	0.0724	3.25	0.24
OCT 3,82	OCT 2,82	589.0	*****	*****	4.41	0.0788	2.80	0.29
OCT 6,82	OCT 4,82	446.0	8.9	*****	4.78	0.0482	0.90	0.20
OCT 7,82	OCT 6,82	2251.0	18.5	*****	4.36	0.0712	2.05	0.18
OCT 8,82	OCT 7,82	110.0	*****	*****	4.65	0.0436	0.60	0.21
OCT 9,82	OCT 8,82	*****	*****	*****	*****	*****	*****	*****
OCT 10,82	OCT 9,82	987.0	12.2	*****	4.54	0.0554	1.10	0.14
OCT 11,82	OCT 10,82	520.0	22.8	*****	4.28	0.0820	2.25	0.29

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/AEROCHEM #13

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
AUG 4,82	AUG 3,82	*****	*****	*****	*****	*****	*****	*****
AUG 5,82	AUG 4,82	*****	*****	*****	*****	*****	*****	*****
AUG 6,82	AUG 5,82	*****	*****	*****	*****	*****	*****	*****
AUG 7,82	AUG 6,82	*****	*****	*****	*****	*****	*****	0.0316
AUG 8,82	AUG 7,82	*****	*****	*****	*****	*****	*****	*****
AUG 9,82	AUG 8,82	<W 0.01	0.06	<W 0.005	0.030	0.050	0.032	0.0029
AUG 14,82	AUG 13,82	*****	*****	*****	*****	*****	*****	*****
AUG 19,82	AUG 18,82	<T 0.01	0.05	0.030	0.040	<T 0.005	0.720	0.0200
AUG 22,82	AUG 21,82	0.12	0.06	0.035	0.025	0.015	0.354	0.0062
AUG 23,82	AUG 22,82	0.01	0.05	0.005	<T 0.005	<T 0.005	0.036	0.0102
AUG 25,82	AUG 24,82	*****	*****	*****	*****	*****	*****	*****
AUG 26,82	AUG 25,82	*****	0.05	*****	*****	*****	0.114	0.0025
AUG 28,82	AUG 27,82	*****	*****	*****	*****	*****	*****	*****
AUG 29,82	AUG 28,82	0.02	0.03	0.015	<T 0.005	<T 0.005	0.076	0.0063
AUG 30,82	AUG 29,82	*****	0.20	*****	*****	*****	*****	0.0022
AUG 31,82	AUG 30,82	*****	*****	*****	*****	*****	*****	*****
SEP 1,82	AUG 31,82	0.10	0.07	0.010	0.010	U 0.480	0.172	0.0186
SEP 2,82	SEP 1,82	0.04	0.05	0.005	<W 0.005	0.050	0.076	0.0081
SEP 8,82	SEP 7,82	*****	*****	*****	*****	*****	*****	*****
SEP 10,82	SEP 9,82	*****	*****	*****	*****	*****	*****	*****
SEP 11,82	SEP 10,82	*****	U 0.28	*****	*****	*****	*****	0.2630
SEP 12,82	SEP 11,82	0.20	0.15	0.015	0.015	0.025	0.550	0.0178
SEP 13,82	SEP 12,82	0.10	0.07	0.005	0.010	0.015	0.244	0.0145
SEP 15,82	SEP 14,82	*****	*****	*****	*****	*****	*****	*****
SEP 17,82	SEP 16,82	0.01	0.06	<W 0.005	<W 0.005	0.020	0.088	0.0145
SEP 18,82	SEP 17,82	0.02	0.06	<W 0.005	<W 0.005	0.035	*****	0.0112
SEP 19,82	SEP 18,82	*****	*****	*****	*****	*****	*****	*****
SEP 20,82	SEP 19,82	*****	0.09	*****	*****	*****	*****	0.0105
SEP 24,82	SEP 23,82	0.46	0.11	0.040	0.060	0.055	0.570	0.0100
SEP 28,82	SEP 27,82	0.46	0.15	0.060	0.070	0.110	0.700	0.0417
SEP 29,82	SEP 28,82	U 2.35	U 0.30	0.225	0.190	U 0.200	0.850	0.0427
SEP 30,82	SEP 29,82	U 2.00	U 0.35	U 0.205	0.330	U 0.265	*****	U 0.0002
OCT 2,82	OCT 1,82	0.30	0.21	0.030	0.040	0.155	0.470	0.0437
OCT 3,82	OCT 2,82	0.46	0.12	0.055	0.040	0.075	0.380	0.0389
OCT 6,82	OCT 4,82	0.07	0.04	0.010	0.010	<T 0.005	0.258	0.0166
OCT 7,82	OCT 6,82	0.06	0.05	0.005	0.020	0.010	0.308	0.0437
OCT 8,82	OCT 7,82	0.10	0.09	0.005	0.055	0.070	0.128	0.0224
OCT 9,82	OCT 8,82	*****	*****	*****	*****	*****	*****	*****
OCT 10,82	OCT 9,82	0.03	0.04	<W 0.005	0.010	<T 0.005	0.094	0.0288
OCT 11,82	OCT 10,82	0.07	0.06	<W 0.005	0.020	0.010	0.258	0.0525

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END		PRECIP START/END		SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS FIELD OFFICE
		HR.	HR.	HR.	HR.								
OCT 12,82	OCT 11,82	830	830	830	830	1	8.2	1	33655	2	1	102	
OCT 13,82	OCT 12,82	830	830	830	1530	1	4.6	1	33656	2	1	97	C HM
OCT 14,82	OCT 13,82	830	830	2400	400	1	0.4	1	33657	2	1	**** E	
OCT 16,82	OCT 15,82	830	830	1330	1530	2	0.3	2	33659	2	1	**** E	
OCT 18,82	OCT 17,82	930	900	1130	2100	3	5.3	2	33661	2	1	93	H
OCT 19,82	OCT 18,82	900	830	1000	200	1	5.6	2	33663	2	1	110	C
OCT 20,82	OCT 19,82	830	845	1900	2100	2	0.2	2	33665	2	1	**** E	
OCT 29,82	OCT 28,82	830	830	2230	830	1	**** *	2	33667	2	1	**** C	
OCT 30,82	OCT 29,82	830	830	830	1500	1	1.9	2	33669	2	1	164	Q NH
NOV 4,82	NOV 3,82	845	845	845	845	2	13.7	2	33671	2	1	39	C N
NOV 11,82	NOV 10,82	800	800	1230	2000	*	7.9	2	33675	2	1	55	CM
NOV 20,82	NOV 19,82	900	1000	1300	1000	1	13.9	2	33679	2	1	63	
NOV 21,82	NOV 20,82	1000	900	1000	2100	1	**** *	2	33681	2	1	****	
DEC 1,82	NOV 30,82	830	830	830	300	1	0.6	2	33685	2	1	80	
DEC 2,82	DEC 1,82	830	830	300	830	1	0.4	2	33687	2	1	35	E N
DEC 3,82	DEC 2,82	830	830	830	300	*	2.3	2	33689	2	1	113	
DEC 6,82	DEC 5,82	830	830	1200	1800	2	0.3	2	33692	2	1	**** E	
DEC 7,82	DEC 6,82	830	830	830	1130	2	0.2	2	33694	2	1	**** E	
DEC 10,82	DEC 9,82	830	830	300	830	2	0.3	2	33696	2	1	**** E	
DEC 19,82	DEC 18,82	900	900	1800	900	3	0.2	2	33703	2	1	**** E	

ONTARIO MINISTRY OF THE ENVIRONMENT  
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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUC.T. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PHB.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
OCT 12,82	OCT 11,82	540.0	9.4	*****	4.68	0.0486	0.65	0.12
OCT 13,82	OCT 12,82	288.0	3.8	*****	5.03	0.0326	0.25	0.04
OCT 14,82	OCT 13,82	*****	*****	*****	*****	*****	*****	*****
OCT 16,82	OCT 15,82	*****	*****	*****	*****	*****	*****	*****
OCT 18,82	OCT 17,82	318.0	5.6	*****	5.18	0.0300	0.50	0.12
OCT 19,82	OCT 18,82	396.0	8.4	*****	4.86	0.0400	0.70	0.17
OCT 20,82	OCT 19,82	*****	*****	*****	*****	*****	*****	*****
OCT 29,82	OCT 28,82	548.0	14.6	*****	4.54	0.0590	1.55	0.23
OCT 30,82	OCT 29,82	200.0	*****	*****	5.55	0.0282	1.25	0.23
NOV 4,82	NOV 3,82	U 344.0	7.4	*****	4.80	0.0386	0.50	0.12
NOV 11,82	NOV 10,82	283.0	5.6	*****	4.92	0.0338	*****	*****
NOV 20,82	NOV 19,82	569.0	28.5	*****	4.10	0.0990	2.40	0.49
NOV 21,82	NOV 20,82	887.0	10.0	*****	4.76	0.0408	1.10	0.18
DEC 1,82	NOV 30,82	31.0	*****	*****	*****	*****	*****	*****
DEC 2,82	DEC 1,82	U 9.0	*****	*****	3.70	0.2480	*****	*****
DEC 3,82	DEC 2,82	168.0	*****	*****	3.95	0.1424	4.40	0.84
DEC 6,82	DEC 5,82	*****	*****	*****	*****	*****	*****	*****
DEC 7,82	DEC 6,82	*****	*****	*****	*****	*****	*****	*****
DEC 10,82	DEC 9,82	*****	*****	*****	*****	*****	*****	*****
DEC 19,82	DEC 18,82	*****	*****	*****	*****	*****	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
DAILY SAMPLING ANALYSIS RESULTS  
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY/AEROCHEM

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY/SES

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS				
											01-RAIN	01-STD.	02-APIOS	01-MOE	CD
											02-SNOW	02-NIPHER	03-SPECIAL	03-AES	BCD
03-COMP/04-ICE															
FEB 26,82	FEB 25,82	800 800	**** ****	2	****	2	32509	2	1	****	CE				
MAR 1,82	FEB 26,82	800 800	**** ****	2	****	2	32510	2	1	****	CD8				
MAR 8,82	MAR 5,82	800 800	**** ****	2	****	2	32511	2	1	****	CD				
MAR 10,82	MAR 9,82	800 800	1700 ****	2	****	2	32512	2	1	****	C				
MAR 11,82	MAR 10,82	800 800	1200 1700	2	14.1	2	32513	2	1	77	CD				
MAR 15,82	MAR 12,82	800 800	**** ****	3	7.3	2	32514	2	1	111	CD				
MAR 17,82	MAR 16,82	800 800	**** ****	2	0.6	2	32515	2	1	60	C				
MAR 18,82	MAR 17,82	800 800	**** ****	2	****	2	32516	2	1	****	CDG				
MAR 22,82	MAR 19,82	800 800	**** ****	3	****	2	32517	2	1	****	BCD				
MAR 24,82	MAR 23,82	800 800	**** ****	2	3.3	2	32518	2	1	76	ACD				
MAR 25,82	MAR 24,82	800 800	**** ****	2	****	2	32519	2	1	****	C				
APR 14,82	APR 8,82	800 800	**** ****	3	6.9	2	32520	2	1	100	CD				
APR 15,82	APR 14,82	800 800	**** ****	1	2.1	2	32521	2	1	90	BCD				
APR 19,82	APR 16,82	800 800	**** ****	1	****	2	32522	2	1	****	Z				

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY/SES

#15

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
FEB 26,82	FEB 25,82	8.0	*****	*****	*****	*****	*****	*****
MAR 1,82	FEB 26,82	337.0	29.9	*****	4.44	0.0860	2.80	1.13
MAR 8,82	MAR 5,82	141.0	9.2	*****	4.68	*****	0.35	0.29
MAR 10,82	MAR 9,82	77.0	*****	*****	U 5.69	*****	*****	*****
MAR 11,82	MAR 10,82	1789.0	5.4	*****	5.10	0.0376	0.20	0.09
MAR 15,82	MAR 12,82	1329.0	13.9	*****	4.68	0.0528	1.30	0.22
MAR 17,82	MAR 16,82	60.0	*****	*****	3.81	0.2086	4.95	0.77
MAR 18,82	MAR 17,82	808.0	9.2	*****	4.71	0.0442	0.45	0.14
MAR 22,82	MAR 19,82	69.0	*****	*****	4.33	0.0862	2.30	0.20
MAR 24,82	MAR 23,82	415.0	25.8	*****	4.36	0.0848	3.55	0.53
MAR 25,82	MAR 24,82	48.0	*****	*****	U 5.21	0.0916	0.60	<W 0.01
APR 14,82	APR 8,82	1142.0	11.6	*****	5.22	0.0460	1.70	0.26
APR 15,82	APR 14,82	313.0	28.0	*****	U 6.90	0.0408	3.25	0.77
APR 19,82	APR 16,82	20.0	*****	*****	4.89	0.0528	*****	*****

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY/SES

#15

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
FEB 26,82	FER 25,82	*****	*****	*****	*****	*****	*****	*****
MAR 1,82	FEB 26,82	0.50	0.12	0.060	0.030	0.065	1.110	0.0363
MAR 8,82	MAR 5,82	0.20	0.13	0.050	0.030	0.055	<T 0.002	0.0209
MAR 10,82	MAR 9,82	*****	*****	*****	*****	*****	0.520	U 0.0020
MAR 11,82	MAR 10,82	0.02	0.02	<T 0.005	<T 0.005	0.005	0.060	0.0079
MAR 15,82	MAR 12,82	0.11	0.03	0.015	0.025	0.030	0.240	0.0209
MAR 17,82	MAR 16,82	*****	0.22	*****	*****	*****	*****	0.1549
MAR 18,82	MAR 17,82	0.02	0.03	<T 0.005	<T 0.005	0.010	0.012	0.0195
MAR 22,82	MAR 19,82	*****	0.14	*****	*****	*****	*****	0.0468
MAR 24,82	MAR 23,82	0.42	0.26	0.050	0.085	0.160	0.860	0.0437
MAR 25,82	MAR 24,82	*****	0.78	*****	*****	*****	*****	U 0.0062
APR 14,82	APR 8,82	0.25	0.09	0.025	0.060	0.035	0.500	0.0060
APR 15,82	APR 14,82	U 1.50	0.15	U 0.175	0.200	0.090	1.640	U 0.0001
APR 19,82	APR 16,82	*****	*****	*****	*****	*****	*****	0.0129

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY/AEROCHEM #15

PAGE : 1

REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE 01-RAIN 02-SNOW 03-COMP/04-ICE	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER	COMMENTS	
								02-APIOS	01-MOE	EFFICI- ENCY (\$)	FIELD OFFICE	
								03-SPECIAL	03-AES	04-ON HYDRO		
MAY 4,82	APR 23,82	1100 830	**** ****	1	5.1	1	32523	2	1	78	CD	Z
MAY 6,82	MAY 4,82	800 830	**** ****	1	14.0	1	32524	2	1	90	CD	Z
MAY 14,82	MAY 12,82	800 1315	**** ****	1	21.8	1	32525	2	1	64	CD	Z
MAY 18,82	MAY 16,82	1315 1400	**** ****	1	16.5	1	32526	2	1	104	CD	Z
MAY 20,82	MAY 19,82	830 1330	**** ****	1	9.4	1	32527	2	1	90	C	C
JUN 7,82	JUN 6,82	900 900	2200 100	1	16.0	1	32528	2	1	76	CD	
JUN 8,82	JUN 7,82	900 900	**** ****	1	22.0	1	32529	2	1	72	C	
JUN 15,82	JUN 14,82	900 900	**** ****	1	7.8	1	32530	2	1	87	D	
JUN 17,82	JUN 16,82	900 900	**** ****	1	4.6	1	32531	2	1	69	C	
JUN 22,82	JUN 21,82	900 900	1900 ****	1	9.8	1	32532	2	1	104	D	C
JUL 6,82	JUL 5,82	1000 900	1200 400	1	24.0	1	32533	2	1	170	D	N
JUL 7,82	JUL 6,82	900 1000	**** ****	1	3.6	1	32534	2	1	80	D	
JUL 17,82	JUL 16,82	900 1000	**** ****	1	1.0	1	32535	2	1	43	C	N
JUL 24,82	JUL 23,82	800 1000	**** ****	1	10.6	1	32536	2	1	****	DG	
AUG 3,82	AUG 2,82	800 800	**** ****	1	4.5	1	32537	2	1	74	C	H
AUG 5,82	AUG 4,82	900 900	**** ****	1	****	1	32538	2	1	****	C	
AUG 9,82	AUG 8,82	1100 1200	**** ****	1	4.4	1	32539	2	1	68	Q	C
AUG 20,82	AUG 19,82	800 800	**** ****	1	14.0	1	32540	2	1	92	C	HM
SEP 9,82	SEP 8,82	800 800	**** ****	1	6.2	1	32541	2	1	81	CD	HM
SEP 13,82	SEP 12,82	800 800	**** ****	1	35.0	1	32542	2	1	98	C	HM
OCT 18,82	OCT 17,82	900 900	**** ****	2	2.4	1	32543	2	1	29	C	N
NOV 16,82	OCT 18,82	900 900	**** ****	3	****	2	32544	2	1	****	C	Z
NOV 20,82	NOV 19,82	900 900	**** ****	3	11.5	2	32546	2	1	94		
DEC 9,82	DEC 8,82	900 900	**** ****	2	0.2	2	32545	2	1	109	C	
DEC 23,82	DEC 22,82	900 900	**** ****	2	0.4	2	32547	2	1	66	C	

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY/AEROCHEM #15

PAGE : 2

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 4,82	APR 23,82	255.0	13.8	*****	U 6.65	0.0244	2.20	0.42
MAY 6,82	MAY 4,82	812.0	10.6	*****	5.92	0.0338	1.85	0.28
MAY 14,82	MAY 12,82	902.0	9.3	*****	5.32	0.0312	1.30	0.25
MAY 18,82	MAY 16,82	1109.0	32.9	*****	4.28	0.0952	3.70	0.47
MAY 20,82	MAY 19,82	547.0	5.7	*****	5.26	0.0372	0.40	0.06
JUN 7,82	JUN 6,82	782.0	17.4	*****	4.74	0.0610	3.15	0.23
JUN 8,82	JUN 7,82	1029.0	9.6	*****	4.89	0.0512	0.85	0.15
JUN 15,82	JUN 14,82	435.0	7.5	*****	U 6.29	0.0252	0.80	0.20
JUN 17,82	JUN 16,82	204.0	13.5	*****	4.52	0.0470	1.30	0.23
JUN 22,82	JUN 21,82	659.0	2.4	*****	5.45	0.0218	0.10	0.01
JUL 6,82	JUL 5,82	2626.0	7.4	*****	6.14	0.0244	0.85	0.23
JUL 7,82	JUL 6,82	186.0	4.6	*****	5.38	0.0248	0.45	0.16
JUL 17,82	JUL 16,82	U 28.0	*****	*****	*****	*****	0.35	0.05
JUL 24,82	JUL 23,82	675.0	6.8	*****	5.40	0.0238	0.80	0.24
AUG 3,82	AUG 2,82	214.0	5.9	*****	5.28	0.0298	0.50	0.16
AUG 5,82	AUG 4,82	241.0	6.4	*****	5.50	0.0222	0.75	0.21
AUG 9,82	AUG 8,82	194.0	2.0	*****	6.08	0.0182	0.10	0.01
AUG 20,82	AUG 19,82	832.0	8.3	*****	5.24	0.0332	1.35	0.25
SEP 9,82	SEP 8,82	324.0	3.9	*****	5.27	0.0280	0.45	0.05
SEP 13,82	SEP 12,82	2201.0	5.5	*****	4.96	0.0368	0.60	0.06
OCT 18,82	OCT 17,82	U 45.0	*****	*****	5.85	0.0254	1.50	0.26
NOV 16,82	OCT 18,82	1313.0	14.0	*****	4.62	0.0522	1.80	0.24
NOV 20,82	NOV 19,82	699.0	9.8	*****	4.70	0.0356	0.80	0.15
DEC 9,82	DEC 8,82	14.0	*****	*****	U 5.94	0.0306	*****	*****
DEC 23,82	DEC 22,82	17.0	*****	*****	4.91	0.0420	*****	*****

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY/AEROCHEM #15

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 4,82	APR 23,82	0.52	0.15	0.100	0.140	0.150	0.840	U 0.0002
MAY 6,82	MAY 4,82	0.23	0.05	0.050	0.050	0.065	0.700	0.0012
MAY 14,82	MAY 12,82	0.21	<W	0.01	0.025	0.025	0.430	0.0048
MAY 18,82	MAY 16,82	0.18		0.06	0.030	0.040	0.500	0.0525
MAY 20,82	MAY 19,82	<W	0.01	<W	0.005	<T	0.010	0.0055
JUN 7,82	JUN 6,82	0.36	0.10	0.040	0.185	0.060	0.670	0.0182
JUN 8,82	JUN 7,82	0.10	0.02	0.035	<T	0.010	0.015	0.0129
JUN 15,82	JUN 14,82	0.32	0.17	0.075	0.155	0.090	0.346	U 0.0005
JUN 17,82	JUN 16,82	0.18	0.06	0.045	0.035	<T	0.005	0.0302
JUN 22,82	JUN 21,82	0.02	<T	0.02	<W	0.030	<T	0.006
JUL 6,82	JUL 5,82	0.36	0.06	0.060	0.065	0.055	0.360	0.0007
JUL 7,82	JUL 6,82	0.13	0.08	0.025	0.035	0.030	0.186	0.0042
JUL 17,82	JUL 16,82	*****	0.15	*****	*****	*****	*****	*****
JUL 24,82	JUL 23,82	0.13	0.05	0.030	0.065	0.025	0.278	0.0040
AUG 3,82	AUG 2,82	0.09	0.06	0.020	0.095	0.020	0.236	0.0052
AUG 5,82	AUG 4,82	0.20	0.09	0.050	0.110	0.035	0.190	0.0032
AUG 9,82	AUG 8,82	0.09	0.06	0.020	0.035	0.050	0.010	0.0008
AUG 20,82	AUG 19,82	0.14	0.11	0.030	0.045	0.040	0.238	0.0058
SEP 9,82	SEP 8,82	0.11	0.07	0.025	0.040	0.010	0.334	0.0054
SEP 13,82	SEP 12,82	0.04	0.05	<W	0.005	0.015	0.250	0.0110
OCT 18,82	OCT 17,82	*****	U	0.30	*****	*****	*****	0.0014
NOV 16,82	OCT 18,82	0.10	0.07	0.015	0.015	0.030	0.302	0.0240
NOV 20,82	NOV 19,82	<T	0.02	0.05	<W	0.005	<T	0.010
DEC 9,82	DEC 8,82	*****	*****	*****	*****	*****	*****	U 0.0011
DEC 23,82	DEC 22,82	*****	*****	*****	*****	*****	*****	0.0123

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/SES

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PAGE : 1

REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH(MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS	
											01-RAIN 02-SNOW 03-COMP/04-ICE	01-STD. 02-NIPHER
JAN 3,82	JAN 2,82	800 800	800 800	2	11.1	2	33030	2	1	79	CD	
JAN 6,82	JAN 5,82	800 800	1200 1700	2	3.3	2	33031	2	1	60	CD	
JAN 8,82	JAN 7,82	800 800	2100 ****	2	****	2	33032	2	1	****	CD	
JAN 11,82	JAN 10,82	800 800	1000 2100	2	5.9	2	33033	2	1	58	CD	
JAN 15,82	JAN 14,82	800 800	**** 800	2	****	2	33034	2	1	****	CD	
JAN 19,82	JAN 18,82	800 800	2330 730	2	6.5	2	33035	2	1	47	CD	N
JAN 21,82	JAN 20,82	800 800	**** 800	2	****	2	33036	2	1	****	CD	
JAN 22,82	JAN 21,82	800 800	**** 730	2	****	2	33037	2	1	****	CD	
JAN 23,82	JAN 22,82	800 800	2000 800	2	25.1	2	33038	2	1	58	CDQ	
JAN 28,82	JAN 27,82	800 800	**** ****	2	****	2	33039	2	1	****	CD	
JAN 30,82	JAN 29,82	1400 1700	**** ****	2	2.1	2	33040	2	1	99	CD	
FEB 19,82	FEB 18,82	800 800	1200 1600	3	0.7	2	33041	2	1	108	CD	
FEB 23,82	FEB 22,82	800 800	900 2100	3	3.1	2	33042	2	1	97	CD	
MAR 1,82	FEB 28,82	800 800	900 2200	2	5.1	2	33043	2	1	54	C	
MAR 5,82	MAR 4,82	800 800	1100 1400	2	****	2	33044	2	1	****	C	
MAR 11,82	MAR 10,82	800 800	1100 2000	2	11.1	2	33045	2	1	90	CD	
MAR 13,82	MAR 12,82	800 800	1600 800	2	11.1	2	33046	2	1	120	C	N
MAR 14,82	MAR 13,82	800 800	800 2000	2	****	2	33047	2	1	****	CD	
MAR 16,82	MAR 15,82	800 800	1100 1500	2	1.3	2	33048	2	1	77	CD	
MAR 17,82	MAR 16,82	800 800	**** 700	2	1.1	2	33049	2	1	129	CD	N
MAR 18,82	MAR 17,82	800 800	**** ****	2	3.5	2	33050	2	1	100	C	
MAR 24,82	MAR 23,82	800 1030	2000 1030	2	5.1	2	33051	2	1	118	C	
MAR 25,82	MAR 24,82	1030 800	**** ****	2	3.9	2	33052	2	1	50	C	C
MAR 30,82	MAR 29,82	800 1000	**** ****	1	1.1	2	33053	2	1	125	C	N
MAR 31,82	MAR 30,82	1000 800	1000 800	3	4.3	2	33054	2	1	116	C	
APR 2,82	APR 1,82	800 800	**** ****	1	3.3	2	33055	2	1	31	CDQ	NH
APR 3,82	APR 2,82	800 800	**** ****	3	2.9	2	33056	2	1	155	C	NC
APR 4,82	APR 3,82	800 800	800 2300	3	6.1	2	33057	2	1	52	C	
APR 12,82	APR 11,82	800 800	**** 800	1	0.5	2	33058	2	1	147	C	NH
APR 13,82	APR 12,82	800 800	800 1300	1	1.3	2	33059	2	1	209	CD	N
APR 15,82	APR 14,82	800 800	**** ****	1	1.5	2	33060	2	1	134	CD	NH4
MAY 1,82	APR 30,82	800 800	1800 2000	1	****	2	33061	2	1	****	CD	H
MAY 4,82	MAY 3,82	800 800	**** ****	1	2.7	2	33062	2	1	119	CD	H
MAY 5,82	MAY 4,82	800 800	800 ****	1	7.1	2	33063	2	1	104	ACD	H

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/SES

#14

PAGE : 2

REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
JAN 3,82	JAN 2,82	1440.0	9.9	*****	4.81	0.0440	0.25	0.15
JAN 6,82	JAN 5,82	326.0	10.6	*****	4.57	0.0590	0.50	0.38
JAN 8,82	JAN 7,82	182.0	*****	*****	4.51	*****	0.35	0.39
JAN 11,82	JAN 10,82	569.0	*****	*****	5.01	0.0484	0.30	0.08
JAN 15,82	JAN 14,82	61.0	*****	*****	4.24	*****	1.55	0.57
JAN 19,82	JAN 18,82	U 507.0	8.0	*****	4.76	0.0532	0.25	0.22
JAN 21,82	JAN 20,82	115.0	*****	*****	4.74	*****	0.20	0.13
JAN 22,82	JAN 21,82	27.0	*****	*****	4.58	*****	*****	*****
JAN 23,82	JAN 22,82	2416.0	3.3	*****	5.14	0.0426	0.20	0.05
JAN 28,82	JAN 27,82	48.0	*****	*****	U 5.57	*****	*****	0.48
JAN 30,82	JAN 29,82	343.0	10.2	*****	4.69	0.0544	0.50	0.31
FEB 19,82	FEB 18,82	124.0	22.3	*****	4.38	*****	2.35	0.28
FEB 23,82	FEB 22,82	494.0	10.5	*****	4.74	0.0678	0.95	0.17
MAR 1,82	FEB 28,82	458.0	33.7	*****	4.32	0.0975	2.70	1.10
MAR 5,82	MAR 4,82	31.0	*****	*****	4.58	0.0598	1.15	0.50
MAR 11,82	MAR 10,82	1640.0	3.7	*****	5.35	0.0406	0.20	0.06
MAR 13,82	MAR 12,82	2191.0	10.8	*****	4.83	0.0506	1.25	0.14
MAR 14,82	MAR 13,82	103.0	*****	*****	5.02	0.0536	0.90	0.11
MAR 16,82	MAR 15,82	165.0	*****	*****	4.69	0.0540	0.90	0.29
MAR 17,82	MAR 16,82	234.0	35.2	*****	4.11	0.1050	2.00	0.58
MAR 18,82	MAR 17,82	575.0	13.6	*****	4.60	0.0564	0.75	0.14
MAR 24,82	MAR 23,82	991.0	13.5	*****	4.72	0.0518	1.40	0.20
MAR 25,82	MAR 24,82	322.0	7.6	*****	5.16	0.0364	0.75	0.05
MAR 30,82	MAR 29,82	227.0	37.8	*****	4.30	0.0784	4.85	0.85
MAR 31,82	MAR 30,82	823.0	12.8	*****	4.87	0.0444	1.30	0.26
APR 2,82	APR 1,82	U 172.0	8.4	*****	5.42	0.0304	1.25	0.06
APR 3,82	APR 2,82	737.0	11.4	*****	5.12	0.0430	1.40	0.21
APR 4,82	APR 3,82	527.0	9.1	*****	4.85	0.0415	0.50	0.17
APR 12,82	APR 11,82	121.0	*****	*****	U 5.85	U 0.0406	U 5.10	U 1.11
APR 13,82	APR 12,82	447.0	14.2	*****	U 6.18	U 0.0358	2.35	0.41
APR 15,82	APR 14,82	331.0	56.0	*****	U 7.07	U 0.0560	6.90	1.34
MAY 1,82	APR 30,82	314.0	U 37.4	*****	U 6.56	U 0.0480	6.85	1.08
MAY 4,82	MAY 3,82	531.0	U 28.4	*****	U 6.20	U 0.0650	4.25	0.86
MAY 5,82	MAY 4,82	1212.0	6.4	*****	5.81	0.0395	0.85	0.15

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/SES

#14

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
JAN 3,82	JAN 2,82	0.04	0.10	<T	0.005	0.060	0.070	***** 0.0155
JAN 6,82	JAN 5,82	0.29	0.16		0.025	0.030	0.070	0.094 0.0269
JAN 8,82	JAN 7,82	0.06	0.06		0.010	0.020	0.040	0.010 0.0309
JAN 11,82	JAN 10,82	0.10	0.08		0.015	0.020	0.040	<T 0.020 0.0098
JAN 15,82	JAN 14,82	*****	0.12	*****	*****	*****	0.198	0.0575
JAN 19,82	JAN 18,82	0.03	0.10	<T	0.005	0.020	0.020	0.044 0.0174
JAN 21,82	JAN 20,82	0.02	0.10	<T	0.005	<T 0.010	0.010	0.002 0.0182
JAN 22,82	JAN 21,82	*****	*****	*****	*****	*****	*****	0.0263
JAN 23,82	JAN 22,82	0.05	0.06	<T	0.005	0.010	<T 0.010	<T 0.002 0.0072
JAN 28,82	JAN 27,82	*****	0.27	*****	*****	*****	*****	U 0.0027
JAN 30,82	JAN 29,82	0.17	0.14		0.020	0.030	0.050	0.098 0.0204
FEB 19,82	FEB 18,82	0.11	0.11		0.010	0.010	0.065	0.430 0.0417
FEB 23,82	FEB 22,82	0.08	0.08	<T	0.005	0.005	0.035	0.212 0.0182
MAR 1,82	FEB 28,82	0.27	0.22		0.025	0.030	0.105	1.140 0.0479
MAR 5,82	MAR 4,82	*****	0.24	*****	*****	*****	*****	0.0263
MAR 11,82	MAR 10,82	0.03	<W 0.01	<T	0.005	<T 0.005	0.005	0.084 0.0045
MAR 13,82	MAR 12,82	0.06	0.04		0.005	0.010	0.030	0.318 0.0148
MAR 14,82	MAR 13,82	0.29	0.20		0.045	0.170	0.140	***** 0.0095
MAR 16,82	MAR 15,82	0.20	0.09		0.025	0.040	0.040	0.114 0.0204
MAR 17,82	MAR 16,82	0.13	0.18		0.010	<T 0.005	0.040	0.046 0.0776
MAR 18,82	MAR 17,82	0.01	0.02	<T	0.005	0.010	0.035	0.024 0.0251
MAR 24,82	MAR 23,82	0.19	0.04		0.010	<T 0.010	0.030	0.278 0.0191
MAR 25,82	MAR 24,82	0.06	0.06		0.005	<T 0.015	0.040	0.126 0.0069
MAR 30,82	MAR 29,82	0.57	0.20		0.085	0.035	0.105	1.110 0.0501
MAR 31,82	MAR 30,82	0.17	0.07		0.010	0.030	0.040	0.350 0.0135
APR 2,82	APR 1,82	0.15	0.26		0.020	0.150	0.210	0.268 0.0038
APR 3,82	APR 2,82	0.23	0.06		0.035	0.035	0.035	0.264 0.0076
APR 4,82	APR 3,82	0.10	0.04		0.010	0.035	0.020	0.030 0.0141
APR 12,82	APR 11,82	U 0.95	U 0.44		U 0.095	0.065	U 0.215	U 2.050 U 0.0014
APR 13,82	APR 12,82	U 0.46	0.13		U 0.080	0.030	0.045	0.980 U 0.0007
APR 15,82	APR 14,82	U 3.42	0.23		U 0.260	0.285	0.115	3.550 U 0.0001
MAY 1,82	APR 30,82	U 1.44	0.06		U 0.295	0.160	0.080	U 2.700 U 0.0003
MAY 4,82	MAY 3,82	U 1.22	0.10		U 0.225	0.130	0.135	U 1.500 U 0.0006
MAY 5,82	MAY 4,82	0.14	<W 0.01		0.030	0.060	0.060	0.350 0.0015

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

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REMOVAL DATE	EXPOSURE DATE	SAMPLING		PRECIP HR. HR.	SAMPLE START/END HR. HR.	GAUGE DEPTH(MM)	GAUGE TYPE 01-STD. 02-NIPHER	SAMPLE NUMBER	PROJECT CODE 02-APIOS 03-SPECIAL	SUBPROJECT CODE 01-MOE 03-AES	SAMPLER EFFICI- ENCY (\$)	COMMENTS	
		START/END	HR. HR.									01-RAIN 02-SNOW 03-COMP/04-ICE	04-ON HYDRO
MAY 10,82	MAY 9,82	800 800	1900 700	1	7.2	1	33064	2	1	97	C	H	
MAY 11,82	MAY 10,82	800 800	2045 800	1	6.8	1	33065	2	1	95	C	H	
MAY 13,82	MAY 12,82	800 800	2100 800	1	8.0	1	33066	2	1	91	CD		
MAY 14,82	MAY 13,82	800 800	**** ****	1	13.4	1	33067	2	1	103	CD		
MAY 15,82	MAY 14,82	800 800	**** ****	1	1.0	1	33068	2	1	51	CD		
MAY 16,82	MAY 15,82	800 800	2300 ****	1	4.6	1	33069	2	1	87	C		
MAY 17,82	MAY 16,82	800 800	1200 ****	1	3.2	1	33070	2	1	92	C		
MAY 18,82	MAY 17,82	800 800	800 ****	1	5.8	1	33071	2	1	85	CD		
MAY 19,82	MAY 18,82	800 800	800 ****	*	8.4	1	33072	2	1	92	C		
MAY 20,82	MAY 19,82	800 800	800 1500	1	1.2	1	33073	2	1	44	C	N	
JUN 1,82	MAY 31,82	800 800	1100 ****	1	3.2	1	33074	2	1	78	C		
JUN 2,82	JUN 1,82	800 800	800 1100	1	2.0	1	33075	2	1	47	CD	N	
JUN 7,82	JUN 6,82	800 800	1900 700	1	6.5	1	33076	2	1	106	CD	H	
JUN 8,82	JUN 7,82	800 800	800 800	1	2.0	1	33077	2	1	56	C		
JUN 10,82	JUN 9,82	800 800	800 800	1	24.4	1	33078	2	1	104	C		
JUN 11,82	JUN 10,82	800 800	800 1000	1	1.0	1	33079	2	1	54	C		
JUN 14,82	JUN 13,82	800 800	1700 ****	1	14.8	1	33080	2	1	93			
JUN 21,82	JUN 20,82	800 1000	1400 800	1	13.6	1	33081	2	1	104			
JUN 24,82	JUN 23,82	800 900	2100 ****	1	6.5	1	33082	2	1	107	CD		
JUL 3,82	JUL 2,82	800 900	2000 900	1	46.0	1	33083	2	1	91	D		
JUL 4,82	JUL 3,82	800 900	900 2300	1	16.0	1	33084	2	1	103	D		
JUL 5,82	JUL 4,82	900 800	**** ****	1	8.6	1	33085	2	1	106			
JUL 6,82	JUL 5,82	800 800	1600 800	1	25.0	1	33086	2	1	195	CD	N	
JUL 7,82	JUL 6,82	800 1200	800 800	1	8.6	1	33087	2	1	91	D		
JUL 13,82	JUL 12,82	800 1100	1500 1700	1	12.0	1	33097	2	1	15	D	N	
JUL 15,82	JUL 14,82	800 800	500 700	1	8.2	1	33098	2	1	103	CD	H	
JUL 18,82	JUL 17,82	800 800	500 800	1	7.8	1	33099	2	1	98			
JUL 21,82	JUL 20,82	800 1000	**** 900	1	2.8	1	33100	2	1	85	C		
JUL 28,82	JUL 27,82	800 1000	**** 900	1	6.4	1	33101	2	1	97	CD		
AUG 3,82	AUG 2,82	800 1000	900 800	1	6.4	1	33102	2	1	97	CD	H	
AUG 7,82	AUG 6,82	800 800	1000 1200	1	2.0	1	33103	2	1	78	C	M	
AUG 9,82	AUG 8,82	800 800	900 1900	1	14.5	1	33104	2	1	90			
AUG 19,82	AUG 18,82	830 830	1800 ****	1	8.6	1	33105	2	1	104			
AUG 22,82	AUG 21,82	800 800	1500 2200	1	8.0	1	33106	2	1	86			
AUG 23,82	AUG 22,82	800 800	**** ****	1	1.2	1	33107	2	1	50	C		
AUG 25,82	AUG 24,82	800 800	1300 800	1	4.5	1	33108	2	1	87		HM	
AUG 26,82	AUG 25,82	800 1100	800 800	1	1.4	1	33109	2	1	75			
SEP 1,82	AUG 31,82	800 1000	1230 1700	1	15.8	1	33110	2	1	94			
SEP 4,82	SEP 3,82	800 900	1200 ****	1	16.2	1	33111	2	1	***	EG		
SEP 12,82	SEP 11,82	800 1100	**** 800	1	4.4	1	33112	2	1	77	C		

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAY 10,82	MAY 9,82	449.0	13.2	*****	4.98	0.0546	2.05	0.37
MAY 11,82	MAY 10,82	418.0	12.5	*****	5.93	0.0442	2.00	0.38
MAY 13,82	MAY 12,82	467.0	12.6	*****	4.87	0.0426	1.35	0.15
MAY 14,82	MAY 13,82	889.0	14.2	*****	4.70	0.0478	1.45	0.12
MAY 15,82	MAY 14,82	33.0	*****	*****	4.27	0.1032	U 10.90	U 2.08
MAY 16,82	MAY 15,82	259.0	*****	*****	4.03	0.1328	5.10	0.56
MAY 17,82	MAY 16,82	190.0	*****	*****	4.59	0.0632	3.00	0.40
MAY 18,82	MAY 17,82	317.0	*****	*****	4.53	0.0556	1.70	0.33
MAY 19,82	MAY 18,82	500.0	*****	*****	5.11	0.0362	0.65	0.08
MAY 20,82	MAY 19,82	11 34.0	*****	*****	5.99	0.0210	0.10	<W 0.01
JUN 1,82	MAY 31,82	162.0	8.6	*****	4.80	0.0304	0.55	0.09
JUN 2,82	JUN 1,82	U 61.0	2.6	*****	5.54	0.0188	<T 0.05	<W 0.01
JUN 7,82	JUN 6,82	444.0	13.6	*****	4.86	0.0322	2.60	0.22
JUN 8,82	JUN 7,82	72.0	10.8	*****	4.97	0.0388	1.00	0.16
JUN 10,82	JUN 9,82	1638.0	6.5	*****	4.94	0.0340	0.55	0.07
JUN 11,82	JUN 10,82	35.0	*****	*****	5.58	0.2260	*****	*****
JUN 14,82	JUN 13,82	885.0	5.2	*****	5.34	0.0302	0.50	0.10
JUN 21,82	JUN 20,82	910.0	5.1	*****	5.07	0.0314	0.30	0.03
JUN 24,82	JUN 23,82	447.0	15.8	*****	U 6.90	0.0246	1.25	0.48
JUL 3,82	JUL 2,82	2697.0	15.0	*****	4.57	0.0434	1.60	0.28
JUL 4,82	JUL 3,82	1064.0	12.8	*****	4.60	0.0398	1.30	0.13
JUL 5,82	JUL 4,82	586.0	5.9	*****	5.31	0.0294	0.70	0.19
JUL 6,82	JUL 5,82	3130.0	5.0	*****	5.94	0.0212	0.65	0.17
JUL 7,82	JUL 6,82	507.0	5.8	*****	5.04	0.0264	0.30	0.14
JUL 13,82	JUL 12,82	U 118.0	*****	*****	4.59	0.0430	0.35	0.24
JUL 15,82	JUL 14,82	544.0	13.1	*****	4.94	0.0384	1.65	0.45
JUL 18,82	JUL 17,82	490.0	9.4	*****	5.26	0.0298	1.25	0.30
JUL 21,82	JUL 20,82	154.0	5.7	*****	5.00	0.0230	0.30	0.16
JUL 28,82	JUL 27,82	398.0	6.1	*****	5.68	0.0252	0.90	0.13
AUG 3,82	AUG 2,82	402.0	11.6	*****	6.14	0.0400	1.35	0.37
AUG 7,82	AUG 6,82	101.0	*****	*****	4.51	0.0502	1.50	0.51
AUG 9,82	AUG 8,82	844.0	2.0	*****	5.38	0.0206	<T 0.05	<W 0.01
AUG 19,82	AUG 18,82	576.0	12.0	*****	4.81	0.0510	1.85	0.23
AUG 22,82	AUG 21,82	446.0	10.0	*****	4.85	0.0684	1.25	0.23
AUG 23,82	AUG 22,82	39.0	*****	*****	5.21	0.0268	0.20	0.02
AUG 25,82	AUG 24,82	251.0	3.0	*****	5.69	0.0292	0.20	0.06
AUG 26,82	AUG 25,82	68.0	*****	*****	5.22	0.0354	0.90	0.11
SEP 1,82	AUG 31,82	956.0	6.5	*****	4.98	0.0424	0.65	0.13
SEP 4,82	SEP 3,82	600.0	*****	*****	*****	*****	*****	*****
SEP 12,82	SEP 11,82	218.0	9.1	*****	4.87	0.0464	1.15	0.22

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
MAY 10,82	MAY 9,82	0.35	<W	0.01	0.045	0.060	0.015	0.630
MAY 11,82	MAY 10,82	0.38		0.01	0.050	0.105	0.100	0.830
MAY 13,82	MAY 12,82	0.06		0.09	0.005	0.070	0.075	0.224
MAY 14,82	MAY 13,82	0.04		0.06	<W 0.005	0.045	0.055	0.202
MAY 15,82	MAY 14,82	*****	U	0.72	*****	*****	*****	0.0537
MAY 16,82	MAY 15,82	0.13		0.11	0.015	0.060	0.045	0.450
MAY 17,82	MAY 16,82	0.19		0.13	0.025	0.115	0.090	0.590
MAY 18,82	MAY 17,82	0.10		0.08	0.015	0.050	0.065	0.268
MAY 19,82	MAY 18,82	<W 0.01	<W	0.01	<W 0.005	0.025	<W 0.005	0.112
MAY 20,82	MAY 19,82	*****		0.04	*****	*****	*****	0.0010
JUN 1,82	MAY 31,82	0.06		0.04	0.010	0.030	0.035	0.046
JUN 2,82	JUN 1,82	*****	<W	0.01	*****	*****	*****	0.0029
JUN 7,82	JUN 6,82	0.38		0.04	0.040	0.055	0.035	0.580
JUN 8,82	JUN 7,82	*****		0.03	*****	*****	*****	0.0107
JUN 10,82	JUN 9,82	<T 0.01	<W	0.01	<W 0.005	<W 0.005	<T 0.010	0.082
JUN 11,82	JUN 10,82	*****		*****	*****	*****	*****	0.0026
JUN 14,82	JUN 13,82	0.10		0.01	0.020	0.025	<T 0.005	0.132
JUN 21,82	JUN 20,82	0.02		0.01	0.005	<W 0.005	<T 0.005	0.034
JUN 24,82	JUN 23,82	U 0.93		0.08	0.200	0.070	0.025	0.870
JUL 3,82	JUL 2,82	0.20		0.05	0.035	0.020	0.025	0.280
JUL 4,82	JUL 3,82	0.03		0.04	0.005	0.020	<T 0.005	0.214
JUL 5,82	JUL 4,82	0.12		0.05	0.020	<T 0.015	<T 0.010	0.216
JUL 6,82	JUL 5,82	0.24		0.05	0.040	0.035	0.050	0.254
JUL 7,82	JUL 6,82	0.04	<T	0.02	0.005	<T 0.010	<T 0.005	0.108
JUL 13,82	JUL 12,82	*****		0.09	*****	*****	*****	0.020
JUL 15,82	JUL 14,82	0.30		0.07	0.065	0.025	<T 0.005	0.640
JUL 18,82	JUL 17,82	0.33		0.11	0.045	0.105	0.060	0.420
JUL 21,82	JUL 20,82	0.05		0.06	0.020	0.025	0.015	0.070
JUL 28,82	JUL 27,82	0.12		0.04	0.050	0.030	<T 0.010	0.300
AUG 3,82	AUG 2,82	0.31		0.17	0.060	0.210	0.065	0.730
AUG 7,82	AUG 6,82	0.18		0.17	0.040	0.095	0.105	0.334
AUG 9,82	AUG 8,82	0.02	<W	0.01	0.005	<T 0.015	0.015	0.008
AUG 19,82	AUG 18,82	0.08		0.03	0.030	<T 0.015	<T 0.005	0.570
AUG 22,82	AUG 21,82	0.18		0.07	0.055	0.045	<T 0.010	0.296
AUG 23,82	AUG 22,82	*****		0.05	*****	*****	*****	0.0062
AUG 25,82	AUG 24,82	0.05	<W	0.01	0.020	<T 0.010	<T 0.005	0.168
AUG 26,82	AUG 25,82	*****		0.11	*****	*****	*****	0.0060
SEP 1,82	AUG 31,82	0.05		0.07	0.005	0.010	0.020	0.186
SEP 4,82	SEP 3,82	*****		*****	*****	*****	*****	*****
SEP 12,82	SEP 11,82	0.17		0.08	0.015	0.015	0.020	0.330

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHM #14

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REMOVAL DATE	EXPOSURE DATE	SAMPLING START/END HR. - HR.	PRECIP START/END HR. HR.	SAMPLE TYPE	GAUGE DEPTH (MM)	GAUGE TYPE	SAMPLE NUMBER	PROJECT CODE	SUBPROJECT CODE	SAMPLER EFFICI- ENCY (%)	COMMENTS					
											01-RAIN	01-STD.	02-APIOS	01-MOE	FIELD	OFFICE
											02-SNOW	02-NIPHER	03-SPECIAL	03-AES	04-ON HYDRO	
SEP 13,82	SEP 12,82	1100 900	1100 ****	1	15.4	1	33113	2	1	104	CD	HM				
SEP 17,82	SEP 16,82	800 900	**** ****	1	13.8	1	33114	2	1	95	C	HM				
SEP 18,82	SEP 17,82	900 900	1400 1600	1	3.8	1	33115	2	1	75	ACD	HM				
SEP 19,82	SEP 18,82	900 900	**** ****	1	3.6	1	33116	2	1	70	C	HM				
SEP 24,82	SEP 23,82	800 800	1100 ****	1	6.6	1	33117	2	1	94	AC	H				
SEP 28,82	SEP 27,82	800 800	**** ****	1	16.2	1	33118	2	1	103						
SEP 29,82	SEP 28,82	800 800	800 1100	1	1.8	1	33119	2	1	72	C					
OCT 3,82	OCT 2,82	800 800	800 1900	1	27.0	1	33120	2	1	108	C					
OCT 4,82	OCT 3,82	800 1000	**** ****	2	8.5	2	33131	2	1	81	CD					
OCT 5,82	OCT 4,82	1000 800	1100 1300	1	1.2	1	33121	2	1	37	C	N				
OCT 6,82	OCT 5,82	800 1000	**** ****	1	14.8	1	33122	2	1	100						
OCT 7,82	OCT 6,82	800 800	800 800	1	24.4	1	33123	2	1	104						
OCT 8,82	OCT 7,82	800 800	**** ****	1	2.8	1	33124	2	1	85						
OCT 10,82	OCT 9,82	900 800	1600 2400	1	14.6	1	33125	2	1	98						
OCT 11,82	OCT 10,82	800 900	**** ****	1	1.4	1	33126	2	1	60						
OCT 12,82	OCT 11,82	800 800	800 800	1	4.0	1	33127	2	1	96						
OCT 13,82	OCT 12,82	800 800	**** ****	1	0.7	1	33128	2	1	40						
OCT 17,82	OCT 16,82	800 800	**** ****	1	3.1	2	33129	2	1	107						
OCT 18,82	OCT 17,82	800 800	1100 1500	1	6.3	2	33130	2	1	110						
OCT 29,82	OCT 28,82	800 800	2200 800	1	9.9	2	33132	2	1	101						
OCT 30,82	OCT 29,82	800 800	2100 ****	1	2.1	2	33133	2	1	105	A	HM				
NOV 4,82	NOV 3,82	800 1100	800 700	2	18.5	2	33134	2	1	58	C	HM				
NOV 8,82	NOV 7,82	800 800	1000 1300	3	3.3	2	33135	2	1	63	C					
NOV 11,82	NOV 10,82	800 800	800 ****	3	8.3	2	33136	2	1	53	F					
NOV 12,82	NOV 11,82	800 800	**** ****	3	3.3	2	33137	2	1	****	EF					
NOV 19,82	NOV 18,82	800 1100	1900 1100	1	2.3	2	33138	2	1	75						
NOV 20,82	NOV 19,82	1100 800	**** ****	1	5.6	2	33139	2	1	213						
NOV 21,82	NOV 20,82	800 800	800 1400	1	****	2	33140	2	1	****	C	H				
NOV 22,82	NOV 21,82	800 800	800 800	3	6.7	2	33141	2	1	****	EF					
DEC 24,82	DEC 23,82	800 800	900 1400	1	5.1	2	33142	2	1	65	C					

ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

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REMOVAL DATE	EXPOSURE DATE	VOLUME ML	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
SEP 13,82	SEP 12,82	1031.0	7.7	*****	4.78	0.0560	0.80	0.09
SEP 17,82	SEP 16,82	847.0	5.2	*****	4.93	0.0326	0.45	0.10
SEP 18,82	SEP 17,82	184.0	11.1	*****	6.19	0.0570	0.75	0.02
SEP 19,82	SEP 18,82	162.0	10.2	*****	6.46	0.0358	0.85	0.12
SEP 24,82	SEP 23,82	398.0	11.0	*****	5.54	0.0538	1.45	0.38
SEP 28,82	SEP 27,82	1072.0	16.7	*****	4.48	0.0666	1.95	0.33
SEP 29,82	SEP 28,82	84.0	*****	*****	5.60	0.0392	U 8.65	U 1.13
OCT 3,82	OCT 2,82	1875.0	7.2	*****	4.98	0.0304	0.90	0.07
OCT 4,82	OCT 3,82	443.0	3.4	*****	5.17	0.0448	0.20	0.13
OCT 5,82	OCT 4,82	U 29.0	*****	*****	6.05	0.0320	1.40	0.59
OCT 6,82	OCT 5,82	950.0	8.3	*****	4.89	0.0414	0.80	0.16
OCT 7,82	OCT 6,82	1631.0	20.5	*****	*****	*****	2.35	0.22
OCT 8,82	OCT 7,82	153.0	*****	*****	4.66	0.0494	0.85	0.09
OCT 10,82	OCT 9,82	924.0	10.8	*****	4.60	0.0594	0.95	0.11
OCT 11,82	OCT 10,82	54.0	*****	*****	4.44	0.0660	2.15	0.47
OCT 12,82	OCT 11,82	247.0	8.9	*****	4.68	0.0490	0.80	0.11
OCT 13,82	OCT 12,82	U 18.0	*****	*****	4.56	0.0580	*****	*****
OCT 17,82	OCT 16,82	214.0	4.4	*****	5.40	0.0440	0.45	0.07
OCT 18,82	OCT 17,82	446.0	8.9	*****	4.92	0.0472	1.00	0.25
OCT 29,82	OCT 28,82	645.0	6.4	*****	4.89	0.0550	0.60	0.10
OCT 30,82	OCT 29,82	142.0	*****	*****	5.08	0.0426	0.75	0.20
NOV 4,82	NOV 3,82	690.0	2.6	*****	5.12	0.0384	0.15	0.03
NOV 8,82	NOV 7,82	134.0	*****	*****	5.05	0.0426	1.15	0.39
NOV 11,82	NOV 10,82	282.0	4.8	*****	5.13	0.0224	0.30	0.08
NOV 12,82	NOV 11,82	*****	*****	*****	*****	*****	*****	*****
NOV 19,82	NOV 18,82	112.0	*****	*****	4.10	0.1022	2.65	0.48
NOV 20,82	NOV 19,82	767.0	12.0	*****	4.49	0.0594	1.15	0.17
NOV 21,82	NOV 20,82	285.0	7.2	*****	4.88	0.0544	0.85	0.21
NOV 22,82	NOV 21,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	215.0	20.0	*****	4.53	0.0558	2.10	0.38

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ONTARIO MINISTRY OF THE ENVIRONMENT  
 DAILY SAMPLING ANALYSIS RESULTS  
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

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REMOVAL DATE	EXPOSURE DATE	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
SEP 13,82	SEP 12,82	0.09	0.04	0.015	0.020	0.030	0.184	0.0166
SEP 17,82	SEP 16,82	0.02	0.05	<W 0.005	0.025	0.030	0.218	0.0117
SEP 18,82	SEP 17,82	0.10	U 0.51	0.045	U 0.585	U 0.350	0.690	U 0.0006
SEP 19,82	SEP 18,82	0.50	U 0.35	0.115	0.425	U 0.270	0.410	U 0.0003
SEP 24,82	SEP 23,82	0.41	0.19	0.045	0.240	0.180	0.630	0.0029
SEP 28,82	SEP 27,82	0.23	0.10	0.025	0.060	0.040	0.420	0.0331
SEP 29,82	SEP 28,82	U 2.00	U 0.40	0.300	0.360	U 0.280	*****	U 0.0025
OCT 3,82	OCT 2,82	0.09	0.08	<W 0.005	0.045	0.030	0.194	0.0105
OCT 4,82	OCT 3,82	0.09	0.09	0.010	0.040	0.045	0.090	0.0068
OCT 5,82	OCT 4,82	*****	*****	*****	*****	*****	*****	0.0009
OCT 6,82	OCT 5,82	0.09	0.03	0.005	0.020	<W 0.005	0.178	0.0129
OCT 7,82	OCT 6,82	0.05	0.05	0.005	0.030	U 0.015	0.364	*****
OCT 8,82	OCT 7,82	0.07	0.04	0.010	0.020	0.260	0.116	0.0219
OCT 10,82	OCT 9,82	0.03	0.03	<W 0.005	0.020	0.010	0.078	0.0251
OCT 11,82	OCT 10,82	*****	U 0.23	*****	*****	*****	*****	0.0363
OCT 12,82	OCT 11,82	<T 0.01	0.04	<W 0.005	0.015	0.010	0.096	0.0209
OCT 13,82	OCT 12,82	*****	*****	*****	*****	*****	*****	0.0275
OCT 17,82	OCT 16,82	0.05	0.13	<W 0.005	0.080	0.100	0.196	0.0040
OCT 18,82	OCT 17,82	0.18	0.09	0.015	0.060	0.050	0.350	0.0120
OCT 29,82	OCT 28,82	0.04	0.04	<W 0.005	0.010	0.010	0.176	0.0129
OCT 30,82	OCT 29,82	0.09	0.08	0.005	0.015	0.055	0.084	0.0083
NOV 4,82	NOV 3,82	0.04	0.03	<W 0.005	0.015	0.020	0.016	0.0076
NOV 8,82	NOV 7,82	U 0.47	0.11	0.060	0.020	0.030	0.258	0.0089
NOV 11,82	NOV 10,82	0.05	0.06	<W 0.005	<W 0.005	0.010	0.026	0.0074
NOV 12,82	NOV 11,82	*****	*****	*****	*****	*****	*****	*****
NOV 19,82	NOV 18,82	0.10	0.05	<W 0.005	0.015	0.020	0.306	0.0794
NOV 20,82	NOV 19,82	0.09	0.03	0.005	0.020	0.020	0.136	0.0324
NOV 21,82	NOV 20,82	0.06	0.04	<W 0.005	0.020	0.040	0.342	0.0132
NOV 22,82	NOV 21,82	*****	*****	*****	*****	*****	*****	*****
DEC 24,82	DEC 23,82	0.18	U 0.51	0.020	0.375	U 0.370	0.390	0.0295

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